SERVICE MANAGEMENT

Cadillac goes all-out on Allante service program

By Arthur Flax
AUTOMOTIVE NEWS STAFF REPORTER

Owners of Cadillac's new $54,700 Allante have a right to expect that their Italian/American-built car can be fixed quickly and conveniently. Cadillac is taking great pains to be sure that it can.

Cadillac has developed special Allante training classes for its dealership technicians as well as a special program to ensure that repair parts are available.

Also, the Allante carries a warranty that the company says is equal or superior in coverage to that of Mercedes-Benz — generally considered to be the most comprehensive in the industry.

Allante service classes are available through General Motors' 34 Product Service Training schools.

GM offers classes in pearlescent paint repair, body fit and alignment, Bosch anti-skid braking system diagnostics, body computer module (BCM) electronics, and aluminum body repair.

Werner Meier, technical service manager for the Allante Core Group, said he believes the training courses will prove valuable for body and bump shop technicians, electrical technicians, and new-car preparation technicians.

Cadillac is paying particular attention to training technicians to service the Allante body. The body is available in pearlescent white, which offers a unique appearance but also requires unique repair techniques.

$54,700 Allante

Pearlescent white has proved to be the most popular Allante color, but Cadillac service personnel were worried that it would be impossible to repair without respraying the entire car. Pearlescent paint appears differently depending upon the angle from which it is viewed and the manner in which it is sprayed.

Meier said the pearlescent paint is applied in a three-coat process — the first coat is white, the second is a coat of mica particles that determines the appearance of the paint, and the third is a clear coat.

Conventional metallic paint techniques do not directly apply to the repair of white pearlescent tri-coat paint. Early efforts at panel-repair and spot-repair were unsuccessful. Because the resulting color is dependent on the thickness and orientation of the mica flakes in the pearl coat, it was virtually impossible to create a uniform color over a large panel using manual application techniques. Since this pearl coat does not achieve "hiding," its color will continue to change as successive coats are applied, making this color difficult to match.

Before Cadillac decided to proceed with this color, special repair techniques had to be developed. A special "zone process" was developed that determines the depth of the mica in the surrounding area and takes advantage of Allante's highly sculptured lines when the repair process is applied.

Cadillac's ultra luxury car also carries what is believed to be the most extensive product assurance plan offered by an American automaker.

The Allante Assurance Plan's limited warranty includes 7-year/100,000-mile coverage of all major and most other components. Included are the engine, transaxle, steering, brakes, front and rear suspensions, air conditioner and engine cooling systems and fuel system. In addition, the electronic instrument panel cluster, electronic climate control systems and fuel data center are covered for the same period.

Unlike warranties that cover only those repairs resulting from defects in material or worksmanship, Allante's Assurance Plan also covers repairs to any specified original-equipment part that does not function during normal service.

Under the basic coverage, Allante is covered in its entirety for 12 months or 12,000 miles, whichever occurs first. Following expiration of the basic coverage, and subject to a $25 deductible, the entire car is covered for up to 7 years/100,000 miles, except for glass, light bulbs and interior and exterior appearance items.

By comparison, Mercedes-Benz offers a four-year/50,000-mile warranty on the entire car. Mercedes however, does not include a $25 deductible on warranty repairs as Cadillac does after the first 12 months or 12,000 miles.

In addition, Allante owners will receive three free oil changes in the first 12,000 miles. When cars come in for an oil change, dealers will extract electronic information from the Allante's onboard computer. From that information, Cadillac's technical center hopes to develop a data base that will enable the division to predict maintenance difficulties down the road, according to Meier.

Cadillac has also taken special measures to ensure that parts are available for the Allante.

The division has set up a special parts stock list for the Allante. In order to encourage dealers to stock those components, Cadillac will buy back unused parts for up to two years.

Cadillac also has set up a warehouse in Lansing, Mich., and has set a goal of delivering any Allante part within 24 hours of an order. A toll-free number has been established for dealers to order Allante parts.

Technicians who run into difficulty in the repair of an Allante may call a toll-free number to discuss the problem with an engineer. In cases of severe problems that cannot be diagnosed over the phone or by experts within the sales zone, Cadillac will fly an engineer to the dealership to fix the car.

SHOP TALK

FROM PAGE 18

repair centers. Also, rental cars and hotel rooms will be provided if necessary. Payment for the services will be handled directly by Cross Country.

Service pays

Dealers and manufacturers pay a lot of lip service to the benefits of satisfying the customer, but they seldom say what a satisfied customer is worth.

The Capital District Automobile Dealers Association, Albany, N.Y., however, says a dealership that resolves 16 customer complaints per week can achieve an added 200 sales per year, according to a recent study.

On the other hand, a customer who has had an unpleasant experience with a company will tell nine or 10 people.

On the importance of handling complaints properly, the group said that 71 percent of completely satisfied people who had previously complained to a dealer, and 54 percent of partially satisfied people said they would return to the dealer. Only 22 percent of dissatisfied customers said the same.

The dealer association also is encouraging customers to complain when they are not satisfied. Customers who do not voice their complaints are not likely to come back to a business, the association said.

The association has established an Automotive Consumer Action Program — AUTOCAP — to encourage customers to complain and to help dealers resolve those complaints quickly.

AUTOCAP receives more than 60 phone calls per month and more than 95 percent of those calls are resolved through the informal mediation efforts of the AUTOCAP staff, the dealer association said.

Cases that cannot be solved informally go to a panel of consumer advocates and dealer representatives. The panel can require participating dealers to make repairs; it can mandate independent technical inspections of new and used cars; and it can provide consumers with loaner vehicles while repairs are made.

Chinese parts

The Koreans have certainly entered the domestic auto industry with a bang. Might the Chinese be far behind?

Shanghai Truck and Automobile Co., a mainland China manufacturer of cars and parts, set up shop at the "Big I" aftermarket parts show in Atlanta. The company wants to market such automotive items as pistons, electrical components and various forgings and stampings.

Andrea Versenyi, marketing assistant for Dynamic Harvesters, a company that represents several companies based in China, Taiwan and Hong Kong, said Shanghai Truck already has some Toyota and Mitsubishi aftermarket parts business in the United States.

However, this was the company's first foray to the "Big I" show. Versenyi said the company is looking for "any type of business."

Hammer parts

AMG owners in the northwestern U.S. can now get parts for their Hammers (and other AMG cars).

AMG is one of the best-known Mercedes-Benz "tuners" and its Hammer is a 300E-based sedan that is said to be capable of 186 mph.

The company, which has U.S. headquarters in Westmont, Ill., recently signed AMG of Bellevue in Kirkland, Wash., as the first authorized AMG parts and installation center in the Northwest.

The owners are Marcus Westermayer and Ralph Bomer. The signing of the parts center is part of a plan to establish a national network of service centers for the exotically tuned sedans.

Service index continues upward

By Arthur Flax
AUTOMOTIVE NEWS STAFF REPORTER

The Automotive News Service Index climbed 8.6 percent in March compared with March 1986, indicating a substantial increase in service and parts business at new-car dealerships during the month.

March was the second month in a row to register a gain in shop business. In February, the service index was up 4.0 percent over the same month a year earlier.

The index was down 1.7 percent in January, compared with the first month of 1986.

In the first quarter of 1987, shop business was 3.5 percent higher than in the first quarter of 1986.

A Saab dealer in the Northeast, whose service business increased, said, "February is a short month. March is generally a good service month. Customers often put off jobs (such as exhaust-system and shock-absorber repairs) during the winter and take care of their cars during the spring."

A Southern Chevrolet dealer attributed an increase in business to good weather.

And a Mountain States Buick dealer said his increase was due to a "better job of selling service by the service advisors and technicians."

All indicators were positive in March. Sales of all parts and accessories registered the biggest gain, up 13.1 percent over March 1986. Total labor sales (customer paid and warranty) climbed 11.3 percent; gross profit on all labor, parts and accessory sales rose 9.6 percent; shop parts sales (customer paid and warranty) were up 8.6 percent; and repair orders written were up 0.2 percent.

Parts and accessories sales to off-premises customers climbed 16.7 percent in March.

In the first quarter of 1987, all indicators except repair orders written showed gains.

Sales of all parts and accessories climbed 7.6 percent; total labor sales increased 6.7 percent; gross profit on all labor, parts and accessory sales rose 4.6 percent; and shop parts sales went up 3.3 percent.

Repair orders written were down 4.6 percent in the first quarter of 1987.

Parts and accessory sales to off-premises customers were up 10.8 percent through March.

SERVICE INDEX
108.6★

	March, '87 vs. March, '86	3 mos., '87 vs. 3 mos., '86
Gross Profit on All Labor and P&A Sales	+9.6%	+4.6%
Repair Orders Written	+0.2%	−4.6%
Total Labor Sales (Customer & Warranty)	+11.3%	+6.7%
Shop Parts Sales (Customer & Warranty)	+8.6%	+3.3%
Sales of All P&A	+13.1%	+7.6%

★— Survey by Automotive News shows that dealers' service and parts business in March 1987 was 108.6 percent of business in March 1986. Service business in the first 3 months of 1987 was 103.5 percent of business in the corresponding period in 1986.

BMW: *Shortage of technicians prompts importer to recruit and train non-dealer personnel*

By John A. Russell
MOTIVE NEWS STAFF REPORTER

MONTVALE, N.J. — In an effort to increase the number of trained technicians, BMW of North America has started a new training program for non-BMW dealership personnel.

Hans Duenzl, service vice president, said the program began in February in the San Francisco and Montvale zone offices. It will be expanded nationwide within a year.

Duenzl said BMW inaugurated the program in an effort to ease the shortage of trained technicians. He estimated there is a shortage of 400 technicians at BMW's 425 dealerships in the United States.

When the training program is available in all regions, the company will graduate 80 to 100 technicians a year, said John Staley, national service training manager.

BMW is not limiting this concept to service technicians. In June, the company will launch a six-month body-repair course and, shortly afterwards, a five-month paint course.

The six-month long, Service Technician Education Program is offered free of charge to selected candidates. The classes are small, Duenzl said, and will average no more than eight students per course.

BMW is looking for candidates who have some automotive experience, whether in vocational schools or high schools. Candidates must be high school graduates.

As an example of the selection standards, Duenzl said there were 100 applicants for the course in the San Francisco region and only six were selected. Staley said the company advertised for the first candidates, but in the future it will be recruiting from junior colleges and similar educational institutions.

BMW supplies the training and tools for the course, but the candidates are not paid. While BMW does not guarantee the students jobs, it believes that graduates will be offered employment at BMW dealerships.

Enough engineers today, but future isn't bright

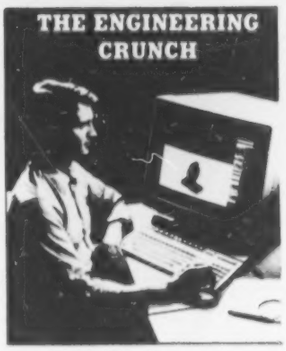
"The thing that just breaks my heart, the best and brightest out of Asia are learning skills that will create jobs. Our best and brightest all want to be Wall Street bankers, consultants and other things that contribute little to the real worth of the country . . ." — H. Ross Perot, Economic Club of Detroit, Dec. 8, 1986.

By Matt DeLorenzo
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — Ross Perot's contention that America is becoming a nation of bankers and burger flippers highlights concerns among many in the auto industry that an engineering crunch may be coming.

Today, there is no shortage of engineers to design, develop and manufacture products. The real worry is whether there will be a sufficient number in the future.

The number of advanced degrees in engineering is dropping and is likely to continue to fall as the students of the baby-boom generation move into post-college age.



"The number of people eligible for bachelor's degrees is decreasing and the number of freshmen declaring in science and engineering is decreasing. If that continues, it leads one to wonder."
— COMPTON

Moreover, a disturbing proportion of engineering graduates in the United States are overseas students who take their skills with them when they return home.

And there is a shortage of teaching facilities to train the next generation of engineers for industry.

Frank Walter, immediate past president of SAE and director — corporate timing planning for Chrysler Motors, is clearly worried.

"We in the U.S. have to recognize that if we haven't fallen back to second-nation status, we're on our way," he said. "It's hard to wake people up to that fact."

Yet, as a key manufacturing industry, the automotive sector will become hamstrung in its effort to compete if it cannot attract and retain quality engineering personnel, as more and better-made products come from overseas.

All of which will have a long-term effect on employment.

Perot and other industry leaders fret that today's youth, enamored with making quick fortunes, are eschewing career paths in engineering and science for business and law degrees. This generation, some believe, is more intent on making its mark in corporate boardrooms, trading pits or courtrooms than at CAD/CAM screens or on shop floors.

The number of engineering graduates in the United States, compared with the number being trained in other countries, is a critical measure of what the future may hold.

"Right now, there is an ample supply of engineers," said W. Dale Compton, a senior fellow at the National Academy of Engineering in Washington and a former vice president of research for Ford Motor Co. "I don't think there is any great deficiency in numbers, but there is uncertainty about the future."

Robert Isenhour, senior vice president of United Research Co., a Morristown, N.J., consulting firm, said, "There is tremendous awareness of the pitfalls of the hollow corporation — one that has design, marketing and distribution on-shore and manufacturing off-shore. Manufacturing can be a very dramatic competitive weapon."

The number of bachelor's degrees in engineering rose 72 percent from 1970-71 to 1984-85, increasing from 44,898 to 77,154, according to the U.S. Department of Education. Business and management degrees more than doubled during that period, rising from 114,865 to 233,351.

However, in advanced degrees, the shift in emphasis was apparent. In 1970-71, there were 16,369 master's degrees awarded in engineering. Fifteen years later, the total was 20,926. Master's degrees in mathematics slumped from 5,191 to 2,882, while doctoral degrees in engineering declined from 3,637 to 3,221.

By contrast, master's degrees in business and management more than doubled, climbing from 26,481 to 67,527.

As the demographic bulge of the baby boom moves to post-college age, a downward trend in the numbers is expected, adding to future uncertainty.

"The number of people eligible for bachelor's degrees is decreasing and the number of freshmen declaring in science and engineering is decreasing," Compton said. "If that continues, it leads one to wonder."

Perhaps even more critical than where future students will come from is the question of who will teach them. A 1985 study conducted by the National Research Council on engineering education and practice in the United States concluded, "If there is one immediately pressing problem in engineering education, it is the current shortage of engineering faculty. Estimates of the severity of the shortage range from 1,567 to 6,700."

The report attributed the shortage to "the perceived unattractiveness of a teaching career relative to a career in industry." Contributing factors include pay and basic research facilities in education that are not on par with those found in industry.

The high percentage of foreign students receiving doctoral degrees in the United States also has a great impact on the pool of Ph.D.s available to teach in schools.

Perot, in his appearance at the Economic Club of Detroit, touched on that. "Go to our great engineering schools, go to MIT, go to Cal Tech and they're filled with Asians," he said.

"That's OK if those Asians happen to be U.S. citizens. But if you dig a little deeper, you're going to find that those are Asians from Asia who are going back to Asia, and I think that doesn't bode well for our future ability to invent."

Or to teach, according to the National Research Council study. Its report revealed that 1,179 of the 3,023 doctoral degrees awarded in 1983 went to foreign nationals. In addition, the number of foreign students studying for doctorates on temporary visas was up from 14 percent of all doctoral students in 1970 to 42 percent in 1983.

"Although foreign-born graduates of U.S. doctoral programs tend to go disproportionately into teaching (and in that sense have been the salvation of engineering education in recent years), the increase in the percentage of those who cannot stay in the United States threatens to dilute the advantage gained through increased Ph.D. output," the report said. "On this basis, the committee concludes that the pool of doctoral candidates should include a higher proportion of U.S. residents."

While Chrysler's Walter is impressed with the engineering and technical students of today, he noted, "I feel they are somewhat handicapped because our basic education isn't up to what it should be. They aren't oriented to work hard enough and long enough to be competitive. Other students around the world probably are better educated and used to working harder and longer. To me, it's a scary situation."

In addition to not preparing students properly, Walter faults primary and secondary education for failing to direct today's youth toward technical careers. "We're not attracting enough people to engineering and technical interests because we're not promoting sciences in basic education," he concluded.

Compton agreed: "We should be encouraging people very early in school and providing the opportunity to take more math and to be exposed more to sciences."

"Our great engineering schools . . . are filled with Asians. That's OK if (they) happen to be U.S. citizens. But . . . (they) are going back to Asia, and that doesn't bode well for our future ability to invent."
— PEROT

While basic education in the United States is considered to be lagging behind systems in other countries, there are few who fault the education that engineers are receiving at the college level.

The 1985 National Research Council study on engineering said: "The committee found a widespread opinion within industry that the competence of recently graduated engineers is higher than ever before. There is no evidence of a serious flaw in the basic technical education of entry-level engineers. On the contrary, the new engineers have strong analytical skills and an excellent theoretical base in engineering science."

The report added that industry finds that practical application of that knowledge is lacking. "Although this is not a new problem, it has been exacerbated by the trend toward fewer design or practice courses," the report said. "Often, additional training of six months to a year is required to acclimate the new engineer properly to the requirements of the job."

There is a trend toward refocusing educational programs to a more practical application of the discipline. Manufacturing is the chief beneficiary of that new approach.

"Based on the capital outlays on on-shore capacity, there will be a market for manufacturing and process engineering," United Research's Isenhour said. "Many large corporations have increased funding for engineering schools teaching exotic disciplines like robotics and automation."

David E. Cole, director of the Center for Automotive Studies at the University of Michigan, said that for a long time, manufacturing engineering was not held in high regard. "It was viewed as a second-hand discipline or a dirty-hands discipline," he said. "Emphasis on manufacturing is strong across the entire country. There is a dramatic increase in the process manufacturing role."

Walter said the nation has let itself fall behind in manufacturing. Only now is there an effort to catch up. "We have not totally recognized that design and production are a mutual process," he said.

Compton said part of the problem is that few engineering teachers have spent enough time in industry to develop a feel for the practical application of the discipline.

"Many engineers are graduating with an inadequate understanding of how engineering is done," he said. "Engineering is taught or is easier taught as a theoretical approach as opposed to the practice of a discipline. We have to convey to the student the practice of engineering."

That is especially true in manufacturing. "Academics have a long way to go to make a substantive contribution to manufacturing," Cole said. "It's a little too 'ivory tower.'"

He added that a number of programs, such as University of Michigan's Center for Research on Integrated Manufacturing, have been developed to bridge the gap between educational theory and industrial application.

Even though education and industry seem to be moving in the same direction on training, it has yet to be seen whether or not the United States will continue to turn out enough qualified and capable engineers to keep pace with the rest of the world.

"It's hard to say we need more engineers," said William Coleman, current SAE president and general manager of Eaton Corp.'s research and development center. "I'm sure some of the engineers in the (U.S.) industry aren't being used as efficiently as possible. Japan has many more times the engineers per 1,000 (population) and is using them effectively to catch up."

Compton agreed that the Japanese are ahead per-capita in educating engineers. But he countered, "It's not clear they are being utilized in a way that would be attractive to U.S. engineers."

Compton said he reached that conclusion several years ago after a tour of a Japanese assembly plant. Stopping at the hot test stand where engines are fired up and tested following assembly, he talked to the technician manning the position.

"I asked him how long he had been in the job, since I was interested in the Japanese concept of moving people around," Compton said. "He said seven years. I asked him what was his educational background and he said he was a graduate engineer. But he was doing what a technician would do.

see ENGINEERS, page 26

UNDERGRADUATE DEGREES, 1985

Country	Total	Engineering (number)	Engineering (% of total)
United States	990,877	77,871	6.9
Japan	373,302	71,396	19.1
West Germany*	57,153	8,068	14.1
United Kingdom*	73,841	10,577	14.3
France*	46,248	12,700	27.5
Soviet Union	853,900	334,970	39.0

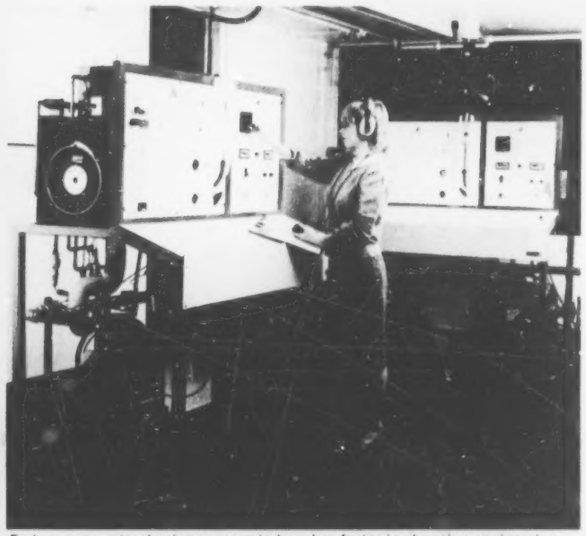
*1984 data.
SOURCE: 1987 update, International Science and Technology Data

U.S. ENGINEERING DEGREES

	Bachelor		Master		Doctor	
Year	Total	Foreign National (%)	Total	Foreign National (%)	Total	Foreign National (%)
1983	72,471	8.5	19,673	26.2	3,023	39.0
1978	46,091	6.7	15,736	22.7	2,573	34.0
1973	43,429	4.9	17,152	14.9	3,587	19.7

A "foreign national" is a non-U.S. citizen on a temporary visa.
SOURCE: Engineering Manpower Commission

"We're not attracting enough people to engineering and technical interests because we're not promoting sciences in basic education."
— WALTER



Early exposure to physics appears to be a key factor in choosing engineering

Women shun engineering careers

Ratio of females is 6%, far below other technical professions

By Matt DeLorenzo
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — Although women comprise half the U.S. population, less than 6 percent of all engineers are women.

Since engineering is one path up the corporate ladder in the auto industry, it appears that women still have a long way to go before they occupy a significant portion of the top-echelon jobs in the automotive world.

The National Research Council's report on engineering education and practice in the United States noted the deficiency. It said: "The participation of women and minorities in engineering should be matters of continuing concern to the engineering community. There is still much to be done."

The study also said that "the percentage of women is markedly lower in engineering than in other science and technical fields. While some 20 percent of chemists and 29 percent of computer specialists, for example, are women, only 5.8 percent of engineers are women."

The latest figures from the National Science Foundation's Science and Technology Data Update show that the United Kingdom has the greatest percentage of women among scientists and engineers, with a rate of 2.7 percent of the workforce.

The United States was second at 2.4 percent of the workforce. As of 1982, there were 2,655,600 engineers and scientists in the United States. Of that number, 263,100 were women.

In Japan, on the other hand, less than one-half of one percent of the total number of scientists and engineers are women.

The situation is beginning to change, albeit slowly, in the United States, according to the National Research Council report.

"Given the traditional view of the engineering profession as a bastion of white males, the change in composition of the engineering student population in recent years has been dramatic," the report said. "The most noticeable change has been in the enrollment of women students, which has risen steadily in recent years from about one percent (in 1970) to 15 percent (1983-84) of the roughly 400,000 full-time undergraduate engineering students nationwide."

The study noted, however, that the increase in women engineering students appears to have leveled off during 1983 and 1984.

Just as the basic education system overall may be failing to prepare students for careers in engineering, that failure may fall disproportionately on women and minorities as well, the report said.

"For women, early exposure to physics in particular appears to be a key factor in the later choice of engineering as a course of study," the report said. "Poor preparation in science and mathematics limits the appeal of engineering to these groups and increases attrition among those who do study engineering, especially among minority students."

The report noted low enrollment by minorities. But it added, "The one exception to this low participation rate among minorities has been among Asian Americans. This group is represented in engineering schools at a disproportionately high level."

"While they make up one percent of the general population (of colleges), they account for 3.9 percent of engineering students. The group as a whole performs extremely well in engineering studies and tends to continue into graduate education at a higher rate than do other demographic groups," the report found.

Blacks, on the other hand, comprise 12 percent of the population, but accounted for only 4.4 percent of engineering enrollment.

The study concluded that the engineering community "should develop strategies to increase the size of the initial science/mathematics pool of minorities and women."

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ENGINEERS

FROM PAGE 24

Just training more (engineers) isn't necessarily the answer."

The United States continues to lead the world in the absolute number of engineers, but as a percentage of all fields, the popularity of engineering as a major course of study lags behind other countries.

According to the National Science Foundation's International Science and Technology Data Update for 1987, the United States awarded 77,871 bachelor's degrees in engineering during 1985. Japan had 71,396 bachelor's graduates in engineering.

The United States number represented only 6.9 percent of all fields, while in Japan, 19.1 percent of all graduates were engineers. Nearly 1 million bachelor's degrees were awarded in the United States during 1985 compared with 373,302 in Japan.

In West Germany, which recorded 57,153 undergraduate university degrees in 1984 (the latest year available), 8,068 (14.1 percent) were awarded in engineering.

That same year, the United Kingdom registered 10,577 (14.3 percent) of its graduates in engineering. France's 12,700 engineering graduates accounted for 27.5 percent of all degrees.

In a climate in which the auto industry is cutting costs by paring the white-collar workforce, it would appear that engineering would be affected as well. However, conflicting signals are emerging, even within the same organization.

Robert J. Eaton, GM vice president and group executive in charge of technical staffs, told Automotive News recently that GM will reduce spending on new technology and on research and engineering staffs as part of the company's overall cost-saving efforts. He said that the cuts will not be as extensive as in other operating units of GM.

Cole: "Academics have a long way to go to make a substantive contribution to manufacturing. It's a little too 'ivory tower.' "

On the other hand, Robert C. Stempel, executive vice president of GM's Truck and Bus Group and Overseas Group — and a product of GM's engineering ranks — said there will be a need for more engineers despite the cuts.

"The need for engineers is continuing to grow," Stempel said. "Don't confuse headcount with basic needs."

"There is a tremendous need for engineers," Chrysler's Walter said. "There's the perception by executives at the top of some auto companies that all the layoffs and plant closings mean there will be less of a need for engineers. That's the wrong interpretation.

"There is a transition process under way. There are fewer engineering jobs at the OEMs — they're getting lean and hungry. But they also depend more and more on suppliers for technology," Walter said.

"In my mind, the opportunities for engineering students are in the supplier industries. I feel very strongly that there are and will be more technological jobs."

Next week: Is the United States facing an innovation gap?

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Design swap to continue — Giugiaro

By Laura Clark
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — Italian car designer Giorgio Giugiaro said the North American public has acquired a taste for European car designs and predicted that the exchange of manufacturing and design ideas between the two continents will continue.

Giugiaro, who has designed such cars as the Audi 4000, Lotus Esprit, Hyundai Pony and Renault Premier, said this exchange has enabled European and American designers to influence each other.

Giugiaro

He is visiting several U.S. cities to promote the new intermediate-sized Renault Premier, which will be introduced later this year.

Giugiaro said Ford Motor Co.'s Taurus/Sable and his own Renault Premier are examples of international cooperation.

Giugiaro, who spoke through an interpreter, said the Taurus/Sable have set a trend toward aerodynamic shapes in the United States just as the new Mercedes-Benz models have done in Europe.

He said the styling of the Premier could be popular in Europe.

Asked about the Premier's future if Chrysler Corp. acquires AMC, Giugiaro said: "I will adapt my design to any request. If Chrysler wants to change it, I would be glad to do it."

Chrysler Corp. Chairman Lee Iacocca has said that the Premier's chassis — which was designed by AMC engineers — was a "good fit" with Chrysler Motors.

Giugiaro said General Motors, which has been criticized for offering look-alike cars, must emphasize creativity in design.

"You must let the creative people do their job," he said.

As for the trend toward more aerodynamic design among other automakers, Giugiaro said he doubts that cars of the future will look alike and lack distinctiveness.

"You can say we're all the same because we have two eyes, a nose and a mouth," he said. "But we all have different personalities."

Domestic sales slip in Japan

TOKYO — Sales of domestically produced vehicles totaled 324,915 in April, a decline of 1.3 percent from April 1986.

It was the first drop in five months.

Import-car sales totaled 7,617 units, up 45.4 percent from the sales volume in same month last year.

According to the Japan Automobile Dealers Association, April's total included 227,225 cars, down 4.3 percent from a year earlier. Sales of trucks grew 6.3 percent and buses climbed 2.9 percent.

JADA said April was the 40th consecutive month that imported-car sales had increased over the year-earlier figure. Sales of imports from the United States totaled 298 units, an increase of 94.8 percent over the year-ago month.

IMPORT SALES BY MODEL

	April 1987	April 1986	4 Mos., 1987	4 Mos., 1986
ACURA	9,503	4,061	31,000	4,785
Integra	5,252	2,396	18,418	2,773
Legend	4,251	1,665	12,582	1,992
ALFA ROMEO	492	510	2,128	1,601
AUDI	4,901	5,870	11,434	21,735
4000S	325	1,229	1,523	4,544
4000CS Quattro	125	322	665	1,434
5000S	3,283	3,158	6,617	12,029
5000CS Turbo	663	530	1,206	1,242
5000CS Turbo Quattro	428	348	1,051	1,438
Coupe GT	77	283	370	1,048
BMW	8,409	8,415	27,486	26,991
318i	2	103	8	755
524 TD	1	229	23	871
325	4,898	5,267	18,459	18,055
528e	804	1,242	3,361	3,915
535i/535iS	1,254	897	2,725	2,237
6-Series	190	247	671	959
7-Series	1,156	630	1,970	2,199
M5	22	0	62	0
M6	80	0	207	0
CHEVROLET	10,657	15,177	39,971	49,866
Spectrum	6,383	8,561	24,317	27,577
Sprint	4,274	6,616	15,654	22,289
CHRYSLER/MITSUBISHI	10,226	10,616	39,888	46,106
Colt	6,584	7,232	25,132	33,353
Conquest	1,240	493	4,483	1,914
Vista	2,402	2,891	10,273	10,839
FORD FESTIVA	351	0	351	0
HONDA	20,448	37,691	84,263	139,069
Civic/CRX	8,021	22,491	36,436	77,145
Accord	7,779	9,118	28,895	36,207
Prelude	4,648	6,082	18,932	25,717
HYUNDAI	21,320	12,282	77,484	23,302
ISUZU	2,953	2,054	8,442	11,858
I-Mark	2,284	1,277	5,841	6,257
Impulse	669	777	2,601	5,601
JAGUAR	1,460	2,159	5,528	6,811
XJ6	1,140	1,780	4,141	5,500
XJS	320	379	1,387	1,311
MASERATI	60	144	240	537
MAZDA	13,020	9,986	53,300	71,988
323	4,751	2,897	20,307	23,641
626	5,143	4,335	21,311	32,170
RX-7	3,126	2,754	11,682	16,177
MERCEDES BENZ	7,731	7,759	29,851	30,336
190	1,583	1,737	6,388	7,473
260E	562	0	1,748	0
300	1,949	1,970	7,917	8,168
300SDL Turbo	587	533	2,348	714
420SEL	1,111	1,265	4,407	5,730
560SEL	532	937	2,163	3,047
560SL	1,109	1,090	3,964	3,752
560SEC	185	227	635	900
Tourist	113	0	281	552
MERKUR	541	1,110	2,656	4,836
MITSUBISHI	6,275	2,977	20,346	15,914
Starion	577	446	1,955	2,047
Cordia	429	327	1,412	1,731
Tredia	437	600	1,408	3,281
Mirage	1,189	709	4,835	3,867
Galant	1,183	895	4,264	4,988
Precis	1,820	0	4,277	0
Van/Wagon	640	0	2,195	0
NISSAN	29,087	37,276	148,539	138,938
Sentra	6,964	12,347	45,253	35,970
Pulsar	5,287	3,713	23,443	15,767
Stanza	4,348	2,460	21,985	14,567
Maxima	6,512	10,147	29,666	36,051
200SX	2,632	3,534	12,451	16,609
300ZX	3,133	4,812	14,738	18,930
Hawaii	211	263	1,003	1,044
PEUGEOT	700	1,088	2,961	4,493
PORSCHE	2,288	2,682	8,151	9,089
924S	276	0	858	0
944	526	1,650	1,928	5,681
944S	241	0	976	0
944 Turbo	258	0	919	0
911 Coupe	427	802	1,450	2,562
911 Turbo	151	0	463	0
911 Cabriolet	241	0	867	0
928S	168	230	690	846
RENAULT	1,162	580	2,301	1,545
18i	0	229	0	686
Fuego	0	351	0	859
Medallion	1,162	0	2,301	0
SAAB	3,149	4,485	13,912	14,685
900	675	1,396	2,906	4,455
900S	1,040	1,360	4,349	4,251
900 Turbo	603	736	2,658	2,454
9000S	298	0	949	0
9000 Turbo	471	927	2,845	3,322
Tourist	72	66	205	203
STERLING	1,621	0	4,199	0
SUBARU	12,102	15,393	47,045	63,792
Hatchback	545	1,441	2,535	6,003
3-Door	995	920	3,882	2,817
4-Door Sedan	2,951	4,987	11,588	20,177
XT	1,508	2,230	6,135	8,658
Station Wagon	5,307	5,815	20,026	26,137
Justy	796	0	2,879	0
TOYOTA	43,470	43,813	144,547	168,118
Corolla	8,210	8,843	27,691	37,423
Tercel	7,172	6,351	23,434	23,354
Celica	6,644	9,443	21,545	32,783
Supra	2,669	2,931	8,797	5,646
Camry	13,156	10,250	42,993	39,200
Cressida	1,989	2,737	6,946	9,694
Land Cruiser	321	188	1,290	1,182
Van	1,223	1,045	4,700	5,612
4Runner SR 5	110	518	424	2,368
MR2	1,555	2,087	5,358	8,926
Hawaii	381	420	1,369	1,930
VOLKSWAGEN	15,896	14,306	39,778	48,087
Cabriolet	1,581	1,649	4,438	4,926
Jetta	6,679	9,221	21,145	32,928
Vanagon	1,028	1,201	3,120	3,765
Quantum	551	1,097	1,966	3,290
Scirocco	701	1,138	2,317	3,178
Fox	5,356	0	6,792	0
VOLVO	10,255	10,018	42,479	41,477
240 Series	4,878	4,953	20,669	20,128
740 Series	4,213	4,055	16,938	16,487
760 Series	997	809	4,423	3,687
780	0	0	1	0
Tourist	167	201	448	1,175
YUGO	4,357	1,887	18,162	9,265
IMPORT TOTAL	242,394	252,339	906,442	956,204

Chrysler lining up European importers

By Knut Moberg
SPECIAL CORRESPONDENT

DETROIT — Chrysler Motors will reveal the names of its European importers at September's international auto show in Frankfurt, West Germany.

David W. Lowsley, director of international sales and development, confirmed that Norway is the only country in Europe where Chrysler products are presently sold. The Norwegian company is U.S. Import and Sales, a member of the Harald A. Moller Group that also distributes Volkswagen and Audi products in the country.

Lowsley reported strong interest in Chrysler products among would-be importers and dealers across Europe. "We have received lots of requests, and we believe we will announce many very interesting importers," he said.

He said it appears that many importers of Japanese cars are seriously looking at other cars to complement their Japanese lines. They will split risk and investment, he said.

Chrysler has everything ready for an aggressive sales start in Europe in the spring of 1988. Chrysler will establish a European liaison office close to Frankfurt, staffed by 8 to 12 people. It will be separate from the German import organization.

Alexander Demuth, of Corporate Communication in Frankfurt, will handle public relations.

Several models are being test-marketed in Europe, though the main volume is expected to be the Dodge Caravan/Plymouth Voyager minivans. In Europe, they will be sold with four-cylinder engines as the T125 and T130i in long-wheelbase and short-wheelbase versions.

Lowsley: There is strong interest in Chrysler products among importers and dealers across Europe.

The Chrysler LeBaron will be introduced as the C522i Turbo and 525i. The cars are to be tested on the market in Norway this year.

Lowsley noted, "We know that the cars are already on the gray market in Europe. But cars not imported by the Chrysler importers will carry U.S. names, so it will be easy to identify cars imported by the Chrysler organization and cars on the gray market. This is one of the reasons we have decided to have new names for the cars in Europe."

When Chrysler confirmed plans in March to return to Europe, it promised warranties "better than anyone else's." While Lowsley admitted setbacks in this area because of the different characteristics of the various national markets, he said Chrysler still hoped to offer "the best guarantee on the market for the drivetrain of the car."

AUCTION DATES

American Motors

May 19 — D-A Auto Auction, New Stanton, Pa.

May 20 — Minneapolis Auto Auction, Plymouth, Minn.

May 21 — Corry Auto Auction, Corry, Pa., and Evansville Auto Auction, Evansville, Ind.

May 22 — St. Louis Auto Auction, Bridgeton, Mo.

May 26 — Statesville Auto Auction, Statesville, N.C.

May 27 — Columbus Fair Auto Auction, Columbus, Ohio; Metro Milwaukee Auto Auction, Caledonia, Wis.; and Kansas City Auto Auction, Kansas City, Mo.

May 28 — Aptco Auto Auction, Taylor, Mich.; Todd Auto Auction, Telford, Pa.; and Evansville Auto Auction, Evansville, Ind.

June 2 — D-A Auto Auction, New Stanton, Pa.

June 3 — Minneapolis Auto Auction, Plymouth, Minn.

Chrysler Corp.

May 19 — Florida Auto Auction of Orlando, Ocoee, Fla.; Southern Auto Auction, Warehouse Point, Conn.; Dallas Auto Auction, Grand Prairie, Texas; Aptco Auto Auction, Taylor, Mich.; Hatfield Auto Auction, Hatfield, Pa.; and NuCar-Prep System, Santa Fe Springs, Calif.

May 20 — A.D.E. of Alabama, Boaz, Ala.; Columbus Fair Auto Auction, Obetz, Ohio; and South Seattle Auto Auction, Kent, Wash.

May 21 — Fredericksburg Auto Auction, Fredericksburg, Va.

May 22 — St. Louis Auto Auction, Bridgeton, Mo.

May 26 — American Auto Auction, Walpole, Mass.; Arena Auto Auction, Chicago; and Hatfield Auto Auction, Hatfield, Pa.

Used Car Sales
Auction Averages

May to date	$5,868
Month ago	$5,896
Year ago	$5,134

May 27 — Southwest Auto Auction, Phoenix, Ariz.; Butler Auto Auction, Gibsonia, Pa.; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; and Minneapolis Auto Auction, Plymouth, Minn.

May 28 — Clanton's Auto Auction, Darlington, S.C.; Indianapolis Auto Auction, Indianapolis; and Golden Gate Auto Auction, Fremont, Calif.

Ford Motor Co.

May 19 — South Seattle Auto Auction, Kent, Wash.

May 20 — Columbus Fair Auto Auction, Obetz, Ohio; Clanton's Auto Auction, Darlington, S.C.; and Southern California Auto Auction, Fontana, Calif.

May 21 — Baltimore-Washington Auto Exchange, Baltimore; Houston Predelivery Center, Houston; St. Louis Auto Auction, Bridgeton, Mo.; and Minneapolis Auto Auction, Plymouth, Minn.

May 28 — 166 Auto Auction, Springfield, Mo.; Skyline Auto Exchange, Fairfield, N.J.; and Southwest Auto Auction, Phoenix, Ariz.

General Motors

May 19 — Harrisonburg Auto Auction, Harrisonburg, Va.

May 20 — Hatfield Auto Auction, Hatfield, Pa.; Indianapolis Auto Auction, Indianapolis; Metro Auto Auction, Kansas City, Mo.; Northstar Auto Auction, Shakopee, Minn.; and Golden Gate Auto Auction, Fremont, Calif.

May 21 — Butler Auto Auction, Gibsonia, Pa.; Aptco Auto Auction, Taylor, Mich.; Nashville Auto Auction, Nashville, Tenn.; and Southwest Auto Auction, Phoenix, Ariz.

May 28 — Florida Auto Auction of Orlando (Orlando Extravaganza), Orlando, Fla.

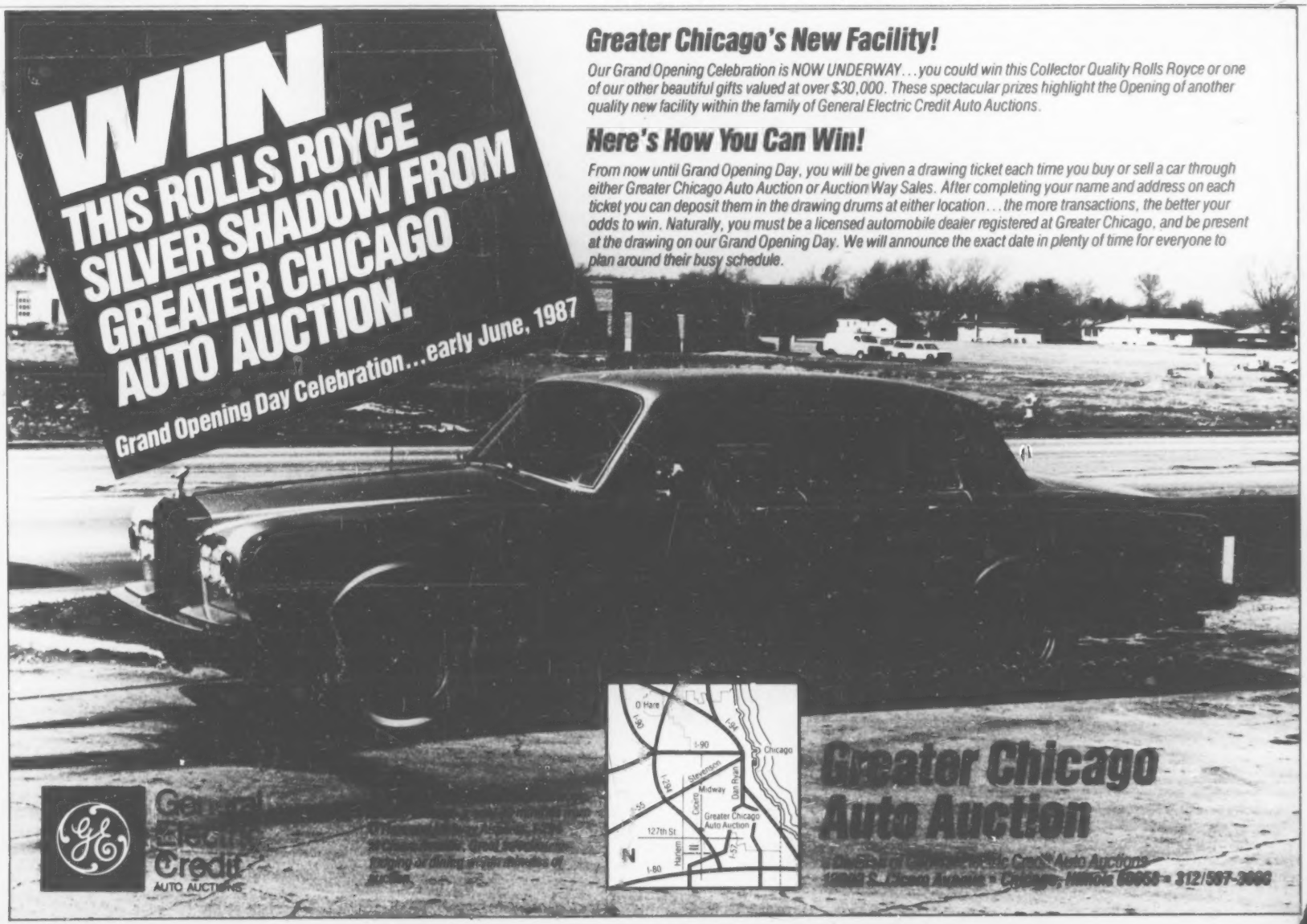
Model Breakdown
Auction Averages

	MAY 1987	APR 1987	MAR 1987
1987	$12,201	$13,266	$13,443
1986	$9,436	$9,460	$9,609
1985	$7,233	$7,236	$7,305
1984	$5,745	$5,732	$5,825
1983	$4,854	$4,842	$4,860
1982	$3,698	$3,727	$3,755
1981	$2,712	$2,635	$2,643
1980	$2,157	$2,170	$2,155
Overall Average	$5,868	$5,832	$5,829

Hildreth to head Tennessee board

NASHVILLE, Tenn. — Gov. Ned McWherter has appointed Frank Hildreth of Lenoir City, chairman of the Tennessee Motor Vehicle Commission. The appointment is for four years and runs concurrently with the term of the governor.

Hildreth has been in the automobile auction business for about 30 years. He owns and operates the Lenoir City Auto Auction.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Greater Chicago's New Facility!
Our Grand Opening Celebration is NOW UNDERWAY...you could win this Collector Quality Rolls Royce or one of our other beautiful gifts valued at over $30,000. These spectacular prizes highlight the Opening of another quality new facility within the family of General Electric Credit Auto Auctions.
Here's How You Can Win!
From now until Grand Opening Day, you will be given a drawing ticket each time you buy or sell a car through either Greater Chicago Auto Auction or Auction Way Sales. After completing your name and address on each ticket you can deposit them in the drawing drums at either location...the more transactions, the better your odds to win. Naturally, you must be a licensed automobile dealer registered at Greater Chicago, and be present at the drawing on our Grand Opening Day. We will announce the exact date in plenty of time for everyone to plan around their busy schedule.
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AUTO AUCTIONS
Greater Chicago Auto Auction

AUTOMOTIVE NEWS CHARLES M. THOMAS

Kazuo Tobiyama, left, Isuzu Motors Ltd. president, and Toshihiro Tajima, Fuji Heavy Industries Ltd. president

FUJI-ISUZU: *Japanese makers begin construction of $500 million auto plant in Indiana*

By Charles M. Thomas
AUTOMOTIVE NEWS STAFF REPORTER

LAFAYETTE, Ind. — Construction of a $500 million manufacturing facility to assemble Isuzu light trucks and Subaru passenger cars is under way here after groundbreaking ceremonies last week.

The plant will employ 1,700 workers when construction is finished in 1989. About 120,000 vehicles will be produced at the facility annually. Future plans call for doubling annual volume to 240,000 cars and trucks, depending on market conditions.

The venture is called Subaru-Isuzu Automotive Inc. (SIA). Isuzu Motors Ltd. owns 49 percent of the company and Fuji Heavy Industries Ltd. — maker of Subaru vehicles — owns 51 percent.

Fuji and Isuzu will split financing for the plant 50-50, said Toshihiro Tajima, Fuji president. Fuji will nominate the chief executive officer and oversee the operation, but there will be equal representation on the company's board of directors.

According to John E. Reilly, senior vice president and general manager of American Isuzu Motors Inc., the two companies will divide output equally with parallel assembly lines making trucks for Isuzu and cars for Subaru.

A new version of Isuzu's light utility vehicle will be introduced in 1990 and produced at the plant in addition to the Trooper sports-utility models.

PARTS

FROM PAGE 1

the authors of the report that Japanese parts makers are generally not worried about competition from U.S. parts manufacturers. "They are more afraid of each other," the report said.

It warned that Japanese parts and materials suppliers will move quickly to introduce not only new high-tech auto parts but also non-auto parts products and materials that have either been produced especially to meet U.S. demand or proved successful in the Japanese market.

"They intend to supply across industry lines, to penetrate deeply into sectors like electronics, aviation, machine tools and consumer goods," the report said.

Some of the biggest names in Japan's auto sector have roots in the Japanese pre-World War II military industrial complex. They are not adverse to supplying components and materials to the lucrative U.S. defense industry, the report said.

The study claims that Japanese auto parts firms are convinced that if they act slowly, their market shares will disappear. They feel that restrictive U.S. legislation will be passed, some of it designed to make investment difficult.

The rush to invest in U.S. light manufacturing is being propelled by a number of factors. The report said the factors include yen appreciation, the stagnant Japanese market, increased off-shore auto assembly, the threat of local-content legislation, lower materials costs and, in some cases, lower labor costs.

The study said that U.S. states with offices in Japan report "a flood of inquiries" from Japanese companies interested in U.S. investment. State and local governments from the United States continue to look for those inquiries. They hope for investment from Japanese parts makers while knowing that the excess capacity may well smother local U.S. manufacturers.

The report noted that for investment-desirability purposes, Japanese parts and materials suppliers rank the Northeast/Midwest states into three groupings. Group I (the most preferable): Illinois, Indiana, Kentucky and Ohio. Group II: Michigan, Missouri and Tennessee; and Group III: Pennsylvania and Arkansas.

The report said Japanese companies are increasingly interested in joint ventures with American companies because they provide quick access to the local market and fast introductions to the U.S. Big Three.

"Having a U.S. partner can reduce original investment while utilizing the partner's marketing channels and raw materials purchase know-how," the Commerce Department report said. "American engineering and development capability is still admired. Negative stereotypes of U.S. labor have improved, but U.S. unions and management are not regarded highly."

The report cautioned, however, that the current estimated life expectancy of such joint ventures is between six and eight years.

The Japanese industry view seems to be that U.S. automakers will cede some production capacity to them while maintaining responsibility only for marketing those parts.

"The authors believe it is a mistake to think that many Japanese parts makers are moving to the U.S. just because Japanese assemblers are doing so.

"The key is that they want to supply the U.S. Big Three, who have greater volume, are not as demanding as Japanese assemblers, and will not squeeze them on price," the study said.

The report offered a glimpse of Big Three efforts to source parts from Japanese companies.

- In May 1986, Ford established a special information office to gather technical, engineering, design and other information on Japan's auto industry. Last year, Ford purchased more than $300 million in parts from approximately 80 suppliers in the country.
- GM created the Japan-GM Cooperative Association as early as 1983. Currently, 84 of GM's 90 Japanese suppliers are members, and last year they rang up sales of $350 million in parts to 126 GM operating units.

"GM management clearly encourages outsourcing. Some estimates say that by the early or mid-1990s, GM will produce only about 60 percent of its parts in-house," the Commerce Department report said. It currently produces close to 80 percent of its own requirements.

The Commerce Department believes the big question is not *if* Japan will get the lion's share of GM's business, but *when*.

"There is much speculation in Japan about what will become of certain GM parts divisions," the report added.

The study quoted a leading Japanese business magazine: "GM's Inland Division had retained a leading Japanese bank for expected merger and acquisition activity and had developed a list of over 50 subsidiary firms in the Toyota, Nissan and Honda groups. Since 1986, GM has entered into joint ventures with Nihon Hatsujo, Akebono Brake and Nihon Radiator, while over 10 Japanese firms are considering possible GM relationships."

- A senior Chrysler Corp. executive hosted a gathering at a Tokyo hotel for 150 executives of the Mitsubishi Motors Group, the report said. He reportedly called on them to form joint ventures with Chrysler.

"Chrysler appears to be the most aggressive in seeking out single-sourcing deals for specific parts with individual Japanese suppliers," the report added.

On the MOSS (Market-Oriented, Sector-Selective) talks, the report said that the Ministry of International Trade and Industry and the Japanese auto industry still seem to believe the auto parts initiative is politically motivated, with no economic justification.

"MITI will continue to insist that price, quality and delivery are still the bottom line for the assemblers. They will take every opportunity in future talks to stress with case studies the continued, increasing outsourcing of parts by the Big Three," the report said.

The MOSS talks on auto parts are scheduled to conclude in late August.

New-car sales nosedive

By Roger Rowand
AUTOMOTIVE NEWS STAFF REPORTER

Sales of new cars built in the United States plunged 36.45 percent during the first 10 days of May compared to the year-earlier period.

May 1-10 sales totaled 151,131 units compared with 237,800 in the 1986 period.

The daily sales rate tumbled to 18,891 units, its lowest level since mid-January. Daily deliveries during that period were 15,722 units. The daily sales rate was 26,608 units during April.

A market analyst at one of the U.S. automakers said the industry's sales rate on an annualized basis during this period last year was running at a very strong 8.7 million cars. The trend now is 7.3 million U.S.-built cars, he said.

None of the U.S.-based automakers posted a gain during the May 1-10 period. American Motors' sales were off 49.83 percent from last year, and General Motors' sales dropped 46.05 percent. Chrysler Motors dealers delivered 38.93 percent fewer U.S.-built cars this year than last.

Ford Motor Co. dealers, who have had relatively strong sales this year, delivered 21.37 percent fewer U.S.-built cars.

Sales by Volkswagen dealers fell 14.68 percent from year-earlier levels.

Honda sales in the first 10 days of May were 58.84 percent higher than those of a year earlier, and Nissan's were up 359.95 percent.

Toyota, which was not selling U.S.-built cars last year at this time, reported deliveries of 566 units during the 10-day period. Toyota's domestic production of Corollas began in September 1986.

DOMESTIC SALES

	May 1-10, 1987	May 1-10, 1986
Renault		
Alliance-Encore	570†	1,185†
AMC	150†	250†
American Motors	720	1,435
Chrysler	6,253	9,938
Plymouth	7,212	10,454
Dodge	7,098	13,280
Chrysler Motors	20,563	33,672
Ford	32,438	39,187
Mercury	10,050	15,239
Lincoln	3,707	4,327
Ford Motor Co.	46,195	58,753
Buick	9,878	22,060
Cadillac	6,262	9,256
Chevrolet	30,082	47,757
Oldsmobile	13,215	34,366
Pontiac	15,478	25,431
General Motors	74,915	138,870
Volkswagen	1,232	1,444
Honda	5,137	3,234
Nissan	1,803	392
Toyota	566	0
U.S. Industry Total	151,131	237,800

†—Estimate

Saab sales dip after 60 records

All winning streaks come to an end and Saab Scania of America's streak was no exception. After 60 months of record sales in the United States, Saab's luck ran out in April.

Saab's April sales were down 1,336 units from the same month in 1986. Sales for the month totaled 3,149 compared with 4,485 last year.

A Saab spokesman was philosophical about the drop, saying the company really expected it to happen sooner or later.

Because of the April dip, Saab's U.S. sales are down 5.26 this year. The four-month total was 13,912, compared with 14,685 in 1986. But the company is still predicting 50,000 sales for 1987, up from 48,181 lat year.

Saab is not the only one down for the year. Most of its European competitors in the higher-priced segment are down, with the exception of Alfa Romeo and Volvo.

Import stocks reach record levels in May

Stocks of unsold new imported cars and trucks in the United States were at record highs May 1.

Inventories of cars in dealers' hands and in transit rose to 567,879 units from 539,759 on April 1, the previous any-month high. The stockpile was the equivalent of a 61-day supply, up from a 57-day supply a month earlier.

On May 1, 1986, the car stockpiles consisted of 346,487 units, equal to a skimpy 38-day supply.

The inventory of imported trucks totaled 238,832 units and, like cars, set a record high for the second month in succession. On April 1, there were 222,158 trucks in stock.

The May 1 truck supply equalled a 67-day supply, compared with 65 days in April and just 48 days on May 1, 1986, when the supply was 156,930 units.

The May 1 car-truck inventory of 806,711 units was equal to a 63-day supply compared with 761,917 units and a 59-day supply April 1.

As of May 1, 65.64 percent of imported-car stocks came from Japan, 20.31 percent from Germany and 14.05 percent from other countries.

IMPORT DAYS' SUPPLIES

	May 1, 1987	Apr. 1, 1987	May 1, 1986
Spectrum	131	126	114
Sprint	138	156	65
Chevrolet	134	137	93
Chrysler Corp.	93	87	66
Acura	41	44	25
Honda	12	11	8
Isuzu	104	161	84
Mazda	66	55	28
Mitsubishi	48	43	37
Nissan	90	62	44
Subaru	115	110	28
Toyota	27	16	13
JAPAN	61	55	32
Audi	116	248	92
BMW	64	64	34
Mercedes-Benz	38	34	18
Merkur	144	49	105
Porsche	82	68	50
VW	84	130	70
GERMANY	75	92	55
Alfa Romeo	124	53	37
Festiva	156	0	0
Hyundai	22	20	0
Jaguar	31	33	26
Peugeot	89	95	69
Renault	283	210	112
Saab	81	63	46
Sterling	45	30	0
Volvo	55	46	32
Yugo	39	34	45
Other Countries	46	39	54
Total Import Cars	61	57	38
Isuzu	74	86	66
Mazda	77	71	32
Mitsubishi	69	70	23
Nissan*	79	84	64
Range Rover	37	0	0
Suzuki	14	16	20
Toyota	61	48	39
Chrysler	97	89	80
Total Imp. Trucks	67	65	48
Total Imp. Vehicles	63	59	40

*Includes domestic trucks.

PRODUCTION

GM closings cut output

By Kathy Barbaglia
AUTOMOTIVE NEWS STAFF REPORTER

With several General Motors plants idle, last week's targeted domestic auto production was the lowest of any five-day work week this year.

Production of 150,378 cars was 7.40 percent below the previous week's 162,404 and 8.61 percent lower than the year-ago week's 164,546.

Last week's scheduled output was shared as follows: GM, 45.40 percent; Ford Motor Co., 28.46 percent; Chrysler Motors, 15.49 percent; Honda of America Manufacturing Inc., 4.46 percent; New United Motor Manufacturing Inc., 2.66 percent; Nissan Motor Manufacturing Co. U.S.A., 1.97 percent; Volkswagen of America, 1.06 percent; and American Motors, 0.50 percent.

Two GM plants closed today (May 18) for inventory adjustment. They are: Pontiac Fiero in Pontiac, Mich., affecting 850 workers, and the Willow Run, Mich., plant affecting 4,800 workers.

Both plants are scheduled to resume operations on May 26.

GM laid off 2,100 second-shift workers at its Doraville, Ga., plant today. The layoff is for changeover to the new GM10 cars. The shift is not expected to be called back until Nov. 30.

Other GM plants down last week were Buick City in Flint, Mich.; Wentzville, Mo.; and Tarrytown, N.Y., all for inventory adjustment; and Arlington, Texas; and Fairfax, Kans., both for model changeover.

GM's Lakewood, Ga., assembly plant resumed production today. The plant had been idle since Dec. 23 for model changeover.

Lakewood previously built the Chevrolet Chevette and Pontiac 1000. It now assembles Chevrolet Caprice sedans and wagons, Buick LeSabre wagons and Pontiac Safari wagons.

Saturday (May 16) overtime was slated for GM's Lansing, Mich. (No. 1) plant.

Ford scheduled Saturday overtime at its Lorain, Ohio, and Kansas City, Mo., plants.

Chrysler's Sterling Heights, Mich., and St. Louis (No. 2) plants were slated for Saturday overtime.

Daily overtime is scheduled this week at Chrysler's Newark, Del.; St. Louis (No. 1); and Sterling Heights plants.

Truck production highest of year

Truck manufacturers scheduled their highest output of the year last week.

Estimated production of 81,960 was 3.05 percent more than the previous week's 79,531 and 5.06 percent more than the year-ago week's 78,013.

Saturday (May 16) overtime was slated at five General Motors plants: Baltimore; Detroit; Lordstown, Ohio; Flint, Mich.; and Pontiac, Mich. (medium-duty line).

Ford Motor Co. scheduled Saturday overtime at its Norfolk, Va., plant.

Canadian auto build moves up

Canadian auto production was estimated at 16,652 cars last week, 38.95 percent more than the prior week's 11,984 but 28.17 percent below the year-ago week's 23,184.

So far this year, 315,138 cars have been built, 29.82 percent below the 449,063 completed last year at this time.

Truck production was scheduled at 17,667 units last week, slightly (0.38 percent) below the previous week's 17,735 but 3.91 percent more than the year-ago week's 17,003.

Year-to-date, 311,697 units have been assembled, 15.19 percent below the 367,537 built last year at this point.

CANADIAN CAR	Week Ended May 16, 1987	Week Ended May 17, 1986	Week Ended May 9, 1987	May to Date	Jan. 1 to May 17, 1986	Jan. 1 to May 16, 1987
AMERICAN MOTORS	100	116	88	206	2,357	2,475
FORD MOTOR	11,547	11,397	11,353	25,211	218,682	205,001
GENERAL MOTORS	4,480	11,446	0	5,589	223,778	102,124
HONDA	300	0	318	672	0	1,533
VOLVO	225	225	225	495	4,246	4,005
Total Cars, Canada	16,652	23,184	11,984	32,173	449,063	315,138

U.S. TRUCK☆	Week Ended May 9, 1987	Week Ended May 10, 1986	Week Ended May 2, 1987	May to Date	Jan. 1 to May 10, 1986	Jan. 1 to May 9, 1987
CHEVROLET	25,400	23,830	21,549	51,690	479,078	429,146
DODGE	4,400	2,603	6,708	12,073	11,289	94,093
FORD	32,682	32,567	31,281	70,244	574,160	582,121
GMC	8,787	7,697	9,249	19,738	143,163	145,500
NAVISTAR	1,671	1,623	1,656	3,660	29,428	29,050
JEEP	3,500	3,389	4,548	9,934	76,123	83,576
NISSAN	1,770	3,954	1,790	3,924	41,386	31,809
AM GENERAL*	450	50	450	990	972	3,300
MISCELLANEOUS*	2,300	2,300	2,300	5,060	43,900	41,400
Total Trucks, U.S.	81,960	78,013	79,531	177,312	1,399,499	1,440,075

CANADIAN TRUCK	Week Ended May 16, 1987	Week Ended May 17, 1986	Week Ended May 9, 1987	May to Date	Jan. 1 to May 17, 1986	Jan. 1 to May 16, 1987
AMERICAN MOTORS	750	710	777	1,682	8,229	12,285
CHRYSLER	8,494	7,784	8,634	18,829	169,789	159,372
FORD	3,648	3,652	3,145	7,506	69,055	60,226
GENERAL MOTORS	4,560	4,636	4,965	10,561	116,545	76,169
NAVISTAR	215	221	214	479	3,919	3,645
Total Trks., Canada	17,667	17,003	17,735	39,047	367,537	311,697
N. Am. Trucks	99,627	95,016	97,266	216,360	1,767,036	1,751,772

—Includes window van production. *—Estimated.
Jeep includes commercial only. AM General includes government-destined vehicles.
Miscellaneous includes estimates for Mack, Volvo-White, Kenworth, Peterbilt, Freightliner, Mercedes-Benz, etc.
Monthly estimates may contain error of one or two units due to rounding.

U.S. CAR	Week Ended May 16, 1987	Week Ended May 17, 1986	Week Ended May 9, 1987	May to Date	Jan. 1 to May 17, 1986	Jan. 1 to May 16, 1987
AMERICAN MOTORS	750	2,073	923	1,826	20,552	13,072
Renault Total	750	2,073	923	1,826	20,552	13,072
Alliance	750	1,857	923	1,826	17,927	13,072
Encore	0	216	0	0	2,525	0
CHRYSLER MOTORS	23,300	26,021	23,289	51,473	549,362	450,771
Plymouth Total	5,100	9,065	5,543	11,826	159,280	145,016
Horizon	0	3,998	0	0	61,383	32,997
Sundance	1,600	0	1,794	3,839	0	41,381
Reliant	2,200	3,870	2,317	5,013	69,583	47,381
Caravelle	1,100	788	1,171	2,471	21,696	22,009
Gran Fury	200	409	261	503	6,618	1,248
Chrysler Total	9,900	6,551	9,278	21,199	185,783	141,111
Laser	0	780	0	0	20,726	0
LeBaron K	1,400	2,203	1,510	3,371	46,965	33,526
LeBaron J	4,700	0	3,303	8,805	0	43,497
LeBaron GTS	800	0	897	1,910	26,930	16,468
N. Yorker/E-Class	1,500	1,415	1,635	3,517	37,467	33,976
Fifth Avenue	1,500	2,153	1,833	3,596	53,695	13,644
Dodge Total	8,300	10,405	8,468	18,448	204,299	164,644
Daytona	1,700	1,202	1,650	3,675	20,776	20,592
Omni	0	3,464	0	0	60,586	28,363
Shadow	1,900	0	2,166	4,578	0	40,128
Aries	3,000	3,126	2,826	6,315	51,224	43,940
Dodge 600	900	1,807	960	2,046	34,189	19,345
Lancer	500	0	578	1,187	24,637	10,460
Diplomat	300	806	288	647	12,887	1,816
FORD MOTOR	42,794	39,009	39,267	90,038	718,537	766,638
Ford Division	30,933	27,555	28,062	64,624	492,259	535,200
Escort	9,200	7,922	7,508	18,139	157,772	140,928
Mustang	4,530	4,530	4,561	9,981	79,419	84,248
Tempo	4,560	4,405	3,968	9,287	81,028	75,141
Taurus	7,876	7,011	7,971	17,449	105,789	172,585
Thunderbird	4,767	3,687	4,054	9,769	68,251	62,298
L-M Division	11,861	11,454	11,205	25,414	226,278	231,438
Mercury Total	7,761	7,764	7,105	16,394	153,643	160,519
Lynx	254	1,455	252	635	25,685	18,656
Capri	0	0	0	0	6,139	0
Topaz	1,740	1,031	1,532	3,543	24,841	23,768
Cougar	3,169	2,455	2,723	6,519	46,929	63,719
Sable	2,598	2,823	2,598	5,696	50,049	54,376
Lincoln Total	4,100	3,690	4,100	9,020	72,635	70,919
Continental	410	407	410	902	8,225	7,101
Lincoln	3,074	2,767	3,076	6,765	54,485	53,188
Mark VII	616	516	614	1,353	9,925	10,630
GENERAL MOTORS	68,274	87,882	84,992	170,445	1,772,229	1,472,457
Buick Total	4,646	17,232	12,799	20,369	298,770	229,927
Skyhawk	67	1,710	0	67	34,860	13,780
Century	1,990	5,317	4,192	7,204	99,167	73,435
Regal	1,200	2,053	1,131	2,551	21,736	17,485
Somerset/Skylark	1,140	2,060	1,146	2,655	40,720	29,896
LeSabre (fwd)	0	3,495	3,641	4,295	44,770	44,079
LeSab./Elec. (rwd)	8	347	2	104	5,517	4,833
Electra (fwd)	0	1,521	2,424	2,939	42,730	39,572
Riviera	241	729	263	555	9,270	6,847
Cadillac Total	5,506	8,159	5,313	12,068	127,808	120,538
Cimarron	200	625	189	436	10,628	6,299
Allante	135	0	124	286	0	1,288
Brougham (rwd)	2,880	2,412	2,885	5,992	34,720	33,516
DeVille (fwd)	1,200	3,760	1,139	3,121	65,593	63,223
Eldorado	573	672	521	1,180	9,152	6,819
Seville	518	690	455	1,052	7,715	9,393
Chevrolet Total	30,468	25,650	33,641	70,556	567,660	556,400
Chevette	0	2,233	0	0	45,101	0
Camaro	2,301	2,857	1,901	4,717	83,224	40,468
Cavalier	8,120	8,433	7,562	17,222	169,142	141,918
Celebrity	8,368	5,530	8,118	18,027	118,607	144,109
Corsica/Beretta	7,250	0	7,134	15,636	0	104,367
Monte Carlo	1,650	2,181	2,451	4,486	46,358	29,354
Chevrolet	2,139	3,776	5,828	9,051	94,471	86,617
Corvette	640	640	647	1,417	10,757	11,567
Oldsmobile Total	13,166	20,308	16,859	33,278	448,880	278,447
Firenza	54	650	0	54	19,790	3,465
Calais	3,660	1,733	3,656	7,946	52,955	46,828
Cutlass Ciera	4,734	4,883	4,664	10,132	108,475	71,340
Cutlass Supreme	1,170	1,930	2,572	4,365	71,482	28,382
88 (fwd)	1,934	8,328	4,074	6,828	132,110	80,350
88 (rwd)	376	516	446	913	8,999	7,366
Olds 98	720	1,745	904	1,887	45,382	30,359
Toronado	518	523	541	1,153	6,687	6,759
Pontiac Total	14,488	16,533	16,360	34,173	329,111	285,145
Acadian*	0	642	0	0	6,131	0
Fiero	1,200	1,415	1,007	2,442	31,107	15,155
1000	0	1,128	0	0	11,128	0
Firebird	1,600	1,521	1,329	3,278	44,511	30,994
2000 Sunbird	2,343	2,909	2,249	5,083	58,612	45,573
Grand Am	6,220	4,601	6,203	13,486	87,358	99,577
6000	0	3,234	2,168	2,676	60,404	32,135
Bonneville	3,125	0	3,140	6,993	0	56,863
Safari/Parisienne	0	1,083	264	316	31,860	4,848
HONDA	6,700	3,960	6,839	14,860	72,061	125,836
Civic	1,741	0	1,476	3,571	0	38,899
Accord	4,959	3,960	5,363	11,289	72,061	86,937
NISSAN	2,980	0	2,942	8,496	21,517	53,453
NUMMI	4,000	3,600	4,152	8,985	69,508	73,234
Corolla	750	0	859	1,769	0	14,868
Nova	3,250	3,600	3,293	7,216	69,508	58,366
VOLKSWAGEN	1,600	2,001	0	1,600	34,666	27,527
Golf/GTI	1,350	2,001	0	1,350	34,666	22,827
Jetta	250	0	0	250	0	4,700
Total Cars, U.S.	150,378	164,546	162,404	345,722	3,258,432	2,982,986
Total Cars, Canada	16,652	23,184	11,984	32,173	449,063	315,138
N. American Cars	167,030	187,730	174,388	377,895	3,707,495	3,298,126
N. Am. Trucks	99,627	95,016	97,266	216,360	1,767,036	1,751,772
North American Cars and Trucks	266,657	282,746	271,654	594,255	5,474,531	5,049,898

*—All Asclans are built for sale in Canada.
Monthly estimates may contain error of one or two units due to rounding.

Ford to sell California Ranger in all states

By Joseph Bohn
AUTOMOTIVE NEWS STAFF REPORTER

Ford Division will offer its Ranger GT pickup in all states for the 1988 model and will call it the Ranger STX. The GT now is available only on the West Coast.

The company also is upgrading all its STX trucks and expanding the High Rider Ranger model to several series, according to Beryl S. Stajich, Ford Division compact truck marketing plans manager.

The upshot is that Ford expects its STX models to account for 15 percent of Ranger sales in the 1988 model year, up from 12 percent this year and 10 percent in 1985.

Stajich disclosed the product plans following a press briefing in which General Tire announced that it has been selected to supply its XP 2000H high-performance tires for the 1988 Ranger STX two-wheel-drive pickups.

It is General Tire's first original-equipment contract for its XP 2000 series.

General Tire currently supplies its Grabber light-truck tire line to various OE accounts, according to Joseph J. McCarthy, General Tire vice president, original equipment.

The company supplies 12 percent of all Ford car and truck tires, said Donald L. Botka, the company's account executive on Ford. It also has 17 percent of all General Motors' car and truck business and about 65 percent of Nissan's pickup truck and Sentra car business in Smyrna, Tenn.

Meanwhile, Stajich said that for 1988, Ford Division will make all Ranger GT suspension components (wheels, tires, etc.) available nationally on the new STX model.

"It has a beefed-up stabilizer bar, beefed-up shocks and high-performance tires that we haven't had in the past," Stajich said.

He compared the truck's handling characteristics to those of a Corvette.

The STX currently is offered in 2wd and 4wd versions. The 1988 vehicle will be basically a new 2wd version of the STX.

The STX currently has the appearance, but not the handling, it will have next fall, Stajich said.

All 4wd STX models are essentially High Riders, a new concept that Ford introduced in 1987.

For the 1988 model year, Ford is upgrading High Rider models by going from P215 to P235 tires, which Stajich described as a "quantum leap."

It will also make the High Rider package — which includes a 1½-inch lift, the P235 tires and deep-dish cast aluminum wheels — available on XLT and Custom base-model Rangers, as well as on high-line STX-trim-level models.

"Our concept originally was to take the sport theme that started as test project on the West Coast in 1985 and use it to change the work-truck image of the Ranger," Stajich said.

Ford added two-tone paint on the lower rocker panels on its first West Coast STX test models. In 1987, it made that two-tone paint standard all the way down to its XLT series Rangers and also offered it on the Custom base model.

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MG revival a dream of Rover Group

Chrysler solicited, but isn't interested

By Jake Lucas
SPECIAL CORRESPONDENT

LONDON — A plan to develop a modern MG sports car for the North American market has been proposed to Chrysler Motors.

The idea is for the car to be built by Britain's Austin Rover Group, owner of the MG marque and manufacturer of the Sterling sedan. The low-priced two-seater would be designed by the engineering division of Group Lotus, and Chrysler would market it primarily in the United States.

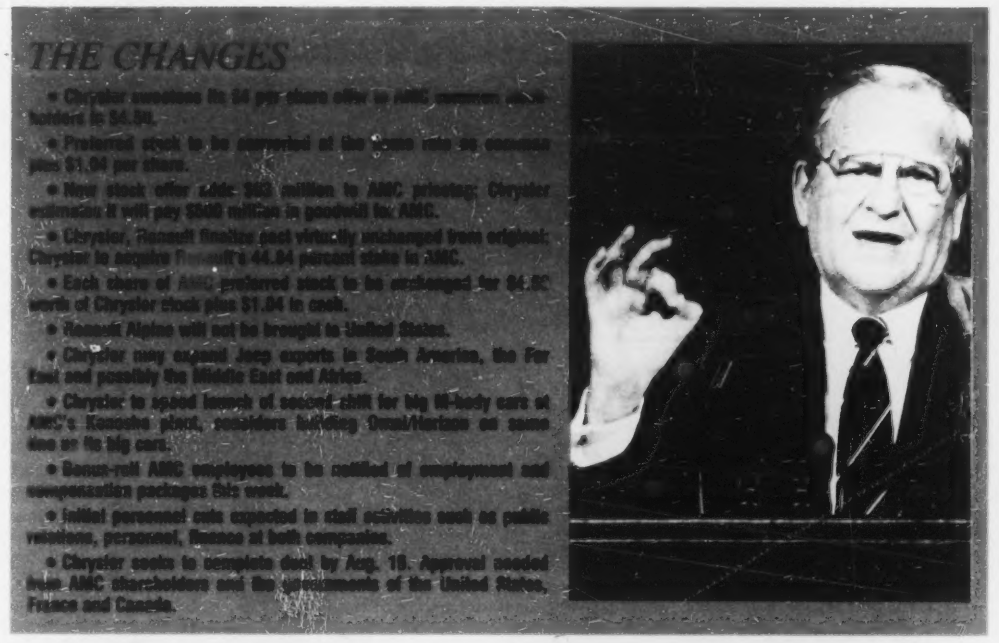
But top Chrysler officials say the plan, revealed last week by The Times, of London, is no longer current. Michael N. Hammes, vice president, international operations at Chrysler Motors, said, "There have been several serious considerations along those lines but they are not going on at this time. Six, eight or nine months ago, there would have been reason to duck (that question)."

He did, however, acknowledge that a joint project is seriously being discussed with "a major European automotive manufacturer." Hammes added, "It would be a vehicle-making venture. They (the discussions) are not along the lines of an equity relationship with the parent company."

Rover Group Chairman Graham Day recently reported a record loss of $1.5 billion for 1986 **(See story, Page 2)**. Capacity is still greatly under-utilized, despite assembly ties with Honda of Japan, and a

see REVIVAL, page 6

The Chrysler-AMC Deal



THE CHANGES

- Chrysler sweetens its $4 per share offer to AMC common stockholders to $4.50.
- Preferred stock to be converted at the same rate on common plus $1.04 per share.
- New stock offer adds $463 million to AMC pricetag; Chrysler estimates it will pay $640 million in goodwill for AMC.
- Chrysler, Renault finalize pact virtually unchanged from original; Chrysler to acquire Renault's 44.84 percent stake in AMC.
- Each share of AMC preferred stock to be exchanged for $4.50 worth of Chrysler stock plus $1.04 in cash.
- Renault Alpine will not be brought to United States.
- Chrysler may expand Jeep exports in South America, the Far East and possibly the Middle East and Asian.
- Chrysler to speed launch of second shift for big M-body cars at AMC's Kenosha plant, considers building Omni/Horizon on same line as its big cars.
- Bonus-full AMC employees to be notified of employment and compensation packages this week.
- Initial personnel cuts expected to start activities such as public relations, personnel, finance at both companies.
- Chrysler seeks to complete deal by Aug. 19. Approval needed from AMC shareholders and the governments of the United States, France and Canada.

Alpine killed but Jeep rosy

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

SAVANNAH, Ga. — As the Chrysler Motors-American Motors merger nears finalization, Chrysler has aborted plans to import the Alpine sports car and is planning to increase worldwide distribution of Jeep.

Chrysler Vice Chairman Bennett E. Bidwell said last week that Chrysler has cancelled plans by American Motors to begin importing this fall the mid-engine, two-seat Alpine.

In addition, Chrysler Motors Executive Vice President for Manufacturing Richard Dauch said that Chrysler will accelerate introduction of a second shift

see ALPINE, page 58

AMC, Chrysler dealers to mesh

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

SAVANNAH, Ga. — The financial success of the Chrysler Motors-American Motors marriage depends on Chrysler's ability to cross-breed products and sell them in both sets of dealer showrooms in the 1990s.

Chrysler Vice Chairman Bennett E. Bidwell said such crossbreeding of the Chrysler-Renault-AMC car and truck lines will not immediately follow the acquisition, but will be crucial to long-term success.

Chrysler and Renault last week reached a final agreement on Chrysler's bid to acquire Renault's 44.84 percent stake in AMC. The AMC board of directors

see DEALERS, page 59

GM trims car build for third quarter

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — General Motors has scheduled extended shutdowns for the traditional summer model changeover at nine of its U.S. assembly plants, which will pull third-quarter car production 11 percent below last year's.

In addition, four of GM's U.S. assembly plants are closed now for major retooling for products new to those plants.

GM plans to produce about 740,000 cars in the United States during the third quarter, an 11 percent decline from the 828,299 it produced in the third quarter of 1986.

Production will be cut by extending the changeover periods for the 1988 models at several plants. Some of the model changeovers are scheduled to last four to six weeks. A two-week to three-week changeover period is typical.

The significant cut in third-quarter production is apparently an effort to avoid an inventory buildup before the start of the 1988 model year. Such a buildup would force GM to offer massive sales incentives to clear out the end-of-year models. Late in the 1986 model year, GM dealers had a million cars in inventory and GM offered what it dubbed "The Big One," the across-the-board 2.9 percent financing program.

There is no word on what kind of cleanup program GM will offer

see GM, page 6

Mr. President

Big Three leaders see sales falling 1.3 million for 1987

By Al Fleming
AUTOMOTIVE NEWS STAFF REPORTER

Presidents of the nation's three largest auto companies agree that industrywide new-car and truck sales in 1987 will drop — by more than 1.3 million units, or some 9 percent, below record year 1986, if their forecasts are averaged.

The forecasts — by General Motors' F. James McDonald, Ford Motor Co.'s Harold A. Poling and Chrysler Motors Corp.'s Harold K. Sperlich — call for 1987 calendar year sales of 15.0 million vehicles, comprised of 10.3 million cars and 4.7 million trucks.

Last year's record total of 16,333,931 sales included 11,463,092 cars and 4,870,839 trucks.

The forecasts by the Big Three's chief operating officers were made during exclusive Automotive News interviews that appear in this week's "The Presidents" Extra, a special section beginning after Page 36.

Other company presidents interviewed were: Noel

Phillips, Volkswagen of America; Kan Higashi, New United Motor Manufacturing Inc. (NUMMI); Shoichiro Irimajiri, Honda of America Manufacturing; and Marvin T. Runyon, Nissan Motor Manufacturing Corp. U.S.A.

McDonald, whose forecast is the most optimistic of the Big Three, said, "We haven't changed our outlook for this year. We still think it's going to be a 15.2 million to 15.4 million total vehicle year — 10.6 million cars and 4.7 million trucks."

see PRESIDENTS, page 36

GM names new president; Stempel takes job Sept. 1

Robert C. Stempel, who kept a low profile while methodically cleaning up General Motors' truck, bus and international operations, was rewarded by being named GM president, effective Sept. 1.

Stempel will succeed F. James McDonald, who will be 65 Aug. 3.

GM Chairman Roger B. Smith chose Stempel over Executive Vice President Lloyd E. Reuss after the two had twice been promoted together and had been obvious rivals for top spots at GM. Now Reuss will add Stempel's Truck and Bus duties to his North American Passenger Car Operations and Reuss will report to Stempel.

GM also named Donald J. Atwood, 63, vice chairman, effective immediately. The post had been vacant since last December.

Stempel, a 53-year-old engineer, ran Chevrolet and Pontiac and the Buick-Oldsmobile-Cadillac Group before becoming executive vice president — Truck, Bus and International in 1986.

As executive vice president, Stempel presided over GM's withdrawal from the money-losing bus and heavy-truck businesses. Light-truck sales and international operations have gained.

Conversely, Reuss may have been hurt by GM's lackluster performance in the U.S. car market, where sales and market share have slipped and GM has been criticized for look-alike cars.

Atwood will continue to head several technical staffs. Elmer W. Johnson was elected executive vice president and a director. Harry J. Pearce succeeds Johnson as general counsel.

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Chrysler tests Mitsubishi as separate franchise — Page 2

GM can't shake Perot buyout — Page 3

Japanese firms invade U.S. parts industry — Page 18

Angry shareholders blast GM's leaders

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

DETROIT — General Motors shareholders last week expressed strong dissatisfaction with the manner in which GM leaders are conducting the corporation's business.

The unrest was evidenced in the vote on several shareholder proposals at the annual stockholders' meeting here, especially one relating to the buyout of H. Ross Perot last December.

That proposal opposed the payment of "greenmail." It was backed by 20.1 percent of the shares voted, the highest vote for a shareholder proposal since GM began keeping such records in the 1940s. A "yes" vote of 5 percent on a shareholder proposal is considered above average.

But that wasn't all. Four other shareholder motions received 9.2 percent to 10.9 percent of the shares voted. The affirmative vote on each of those proposals equaled or exceeded the previous record of 9.2 percent that favored a 1986 motion that GM get out of South Africa.

It was a lively meeting. As expected, GM Chairman Roger B. Smith faced tough questions relating to the $700 million buyout of Perot, plant closings and alleged mismanagement of the company.

Stockholders entering the Fisher Theater for the meeting last Friday encountered a group of about 15 picketers — mostly UAW members — chanting "Jobs, jobs, jobs," and "Stop layoffs, stop the payoffs, fire Roger Smith."

Inside, union members and representatives of consumer advocate Ralph Nader called for Smith's resignation for closing plants, the Perot buyout and for the $169 million in bonuses paid to GM executives when workers received no profit sharing.

The Perot affair culminated last December. He had joined the GM board of directors in 1984 when GM bought his Electronic Data Systems for $2.5 billion. Perot became a critic of GM management, and was asked to resign from the board last December. Perot did so and received $700 million for his GM Class E stock; some of his EDS associates received another $50 million. The payout was about twice the market value of the stock.

The shareholder resolution at last week's meeting asked that no "greenmail" payments be made at prices more than 5 percent above the market value of GM stock unless the same offer was made to all shareholders.

As noted, four other shareholder proposals received a much higher than normal share of the votes cast.

One called for restoration of limited pre-emptive rights to shareholders. It was favored by 9.2 percent of the shares voted. Two asked GM to cease dealings in South Africa because of that nation's apartheid policies. Each won 10.8 percent of the votes. The other sought that changes in GM's by laws be approved by a majority of shareholders. That position was backed by 10.9 percent of the shares voted.

A company proposal changing the terms of the GM incentive compensation plan for executives was approved by 95.2 percent of the shares voted.

At the meeting, shareholders elected 19 directors, including 12 non-employee directors, six GM officers and former GM chairman Thomas A. Murphy, who was asked to stay another year beyond the retirement age of 70. No replacement was nominated for Catherine B. Cleary, who reached the mandatory retirement age.

Nominations for the board from the floor of the meeting included Perot and former presidential candidate Gary Hart.

In response to shareholder questions, Smith disclosed that 1986 worldwide advertising expenditures were was $1.12 billion compared with $1.04 billion in 1985; 1986 fees paid to directors were $766,000; and 1986 charitable contributions were $61.5 million.

In has address to the stockholders, Smith praised GM's dealers. "Our dealers are partners in our business — along with our suppliers — and their success is absolutely vital to our own," he said.

Smith said GM's 10,200 U.S. dealers have total assets of about $30 billion.

He said GM's "dealer-partners" are the company's "crucial connection" to its customers and GM wants its customers "to be more satisfied" than any others in the world, because "satisfying the customer is fundamental to our business."

Smith told the meeting that GM is "moving forward on a number of programs" to help it improve the quality of service they (dealers) provide and that in 1986 GM "provided 300,000 man-days of training, an average of three days' training for every service technician in our dealerships."

Three times in his address Smith referred to GM's dealers as partners and emphasized that GM and its dealers "working as a team," are gearing up to battle the toughest competition ever.

"Together we represent the strongest force in the industry," Smith said.

Smith said GM is redirecting its expenditures from plant facilities to automotive products. He said that automotive capital expenditures, which totaled $10.6 billion in 1986, will be reduced to less than $8 billion in 1987 and about $6 billion in 1989 and beyond.

Product spending in the 1986-89 period "will be higher than any other four-year period in recent GM history," he said.

GLENN TRIEST PHOTOS

Stockholders attending the meeting encountered a group of picketers chanting "Jobs, jobs, jobs" and "Stop layoffs, stop the payoffs, fire Roger Smith."

"Our dealers are partners in our business — along with our suppliers — and their success is absolutely vital to our own."

— SMITH

Salesfolk earn cash on Corsica

$5,000 is top prize for each delivery

By Michelle Krebs and Laura Clark
AUTOMOTIVE NEWS STAFF REPORTERS

Chevrolet has added yet another incentive to its new Corsica and Beretta. The latest one is aimed at dealership salespersons.

At the same time, Chevrolet and GMC placed incentives on their all-new C/K series pickup trucks. Chevrolet also extended and sweetened existing incentives on some other models.

Ford joined the fray with an incentive on its Ranger STX and extended incentives on selected cars and trucks until June 15.

Chevrolet launched the "Corsica/Beretta Cash Play" program last Monday. When a salesperson delivers a 1988 Corsica or Beretta through a retail sale, he or she wins $25 to $5,000 in a computerized random drawing. The dealership finds out how much the salesperson has won by calling an 800 phone number.

The program runs through June 21.

Chevrolet recently put a $500 cash rebate on the Corsica/Beretta, only two months after its official March 12 introduction. Last week, Chevrolet extended the rebate through June 12.

"The cars didn't come out of the box as well as we thought they would," Chevrolet General Manager Robert Burger said last week.

The Corsica and Beretta went on sale in January but the official introduction was in March when national advertising began.

The cars' best month was April, when 13,500 were sold.

Chevrolet said it placed incentives on Corsica and Beretta on May 1 to "level the playing field." Chevrolet officials said that customers who might have bought a Corsica or Beretta selected a Cavalier, Celebrity or Camaro instead because those cars carried incentives.

Nevertheless, May 1-10 sales were lower than sales for April 21-30, even though Chevrolet began offering a $500 cash rebate on the cars May 1. In the first 10 days of May, Chevrolet sold 4,095 Corsicas and Berettas compared with 6,073 in the last sales period of April.

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61st year—No. 5182

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Goodyear chief to address World Congress

What's it like to face a hostile takeover by a corporate raider?

Ask Robert E. Mercer. He'll tell you.

"A hostile takeover amounts to telling you I'm going to rape your wife because it'll improve your marriage," said Mercer, chairman and chief executive officer of Goodyear Tire & Rubber Co.

Mercer's company waged a bruising battle against an unfriendly takeover attempt last year.

The fight sent Goodyear billions of dollars into debt, forcing the company to close several plants, sell off some profitable subsidiaries and cut its payroll by about 10 percent.

Mercer will deliver the "State of the Supplier Industry" address at the 12th Annual Automotive News World Congress, to be held July 26-29 at the Hyatt Regency Hotel in Dearborn, Mich.

He's ready, willing and able to address this year's Congress theme, "Facing Up to Competitive Times."

He will be co-speaker on Sunday evening, July 26, with keynote speaker Gerald Greenwald, chairman of Chrysler Motors Corp.

In addition to Mercer, three other top speakers are scheduled to talk on supplier industry issues.

They are: Rene C. McPherson, former chairman of Dana Corp. and at one time dean of the Graduate School of Business at Stanford University; Allen F. Jacobson, chairman and chief executive officer of 3M Co.; and James McAlpine, executive vice president, Magna International Inc.

McPherson and McAlpine will speak on Monday, July 27, when the day's theme will be "Recoveries and Strategies for the Domestic Industry."

McPherson, whose topic is "The Importance of People" in successful competition is a director of Banc One Corp., Dow Jones & Co., Mercantile Stores Co., Milliken & Co. and Westinghouse Electric Corp.

McAlpine will address the issue of growth as a supplier in the face of intense competition among North American suppliers and offshore competitors.

Jacobson will speak on Wednesday, July 29, when the daily theme will be "Coping With Change." His topic will be "What America's Cup Technology Means to the Auto Industry."

A chemical engineering graduate of Iowa State University, Jacobson joined 3M in 1947 as a product engineer in the tape laboratory.

The four-day World Congress will have more than 30 speakers, sharing their knowledge and viewpoints.

For further information, write: Automotive News World Congress, 1400 Woodbridge Ave., Detroit, MI 48207, or call (313) 446-6047. Overseas inquiries cable: 810-221-5122 AUTNEW.

April truck sales by manufacturer and segment

		14,000 & LESS GVW CLASS 1-3	14,001-16,000 GVW CLASS 4	16,001-19,500 GVW CLASS 5	19,501-26,000 GVW CLASS 6	26,001-33,000 GVW CLASS 7	33,001 & OVER GVW CLASS 8	TOTAL 1987	TOTAL 1986
CHRYSLER	MO	62,985						62,985	52,066
	YR	213,299						213,299	181,181
JEEP	MO	17,144						17,144	14,744
	YR	64,040						64,040	60,800
TOYOTA	MO	29,816						29,816	28,265
	YR	96,702						96,702	118,418
NISSAN	MO	20,483						20,483	19,205
	YR	76,611						76,611	72,132
MAZDA	MO	10,807						10,807	14,112
	YR	38,638						38,638	44,424
ISUZU	MO	9,714						9,714	9,606
	YR	31,387						31,387	30,678
MITSUBISHI	MO	4,606						4,606	4,986
	YR	15,732						15,732	11,506
SUZUKI	MO	8,341						8,341	2,875
	YR	28,942						28,942	12,187
SUBARU	MO	142						142	290
	YR	839						839	1,021
RANGE ROVER	MO	170						170	0
	YR	249						249	0
FORD	MO	128,562			1,004	2,846	1,098	133,510	116,448
	YR	449,443			3,535	9,324	3,669	465,971	422,229
FREIGHTLINER	MO						2,108	2,108	1,649
	YR						6,775	6,775	5,609
CHEVROLET	MO	103,037		19	603	760	27	104,446	111,687
	YR	365,479		65	2,402	2,478	122	370,546	399,631
GMC	MO	28,277		99	841	2,735	991	32,943	30,263
	YR	97,592		2,500	2,171	8,609	3,107	113,979	112,187
KENWORTH	MO					30	1,212	1,242	870
	YR					30	4,246	4,276	3,051
MACK	MO				242	320	1,912	2,474	2,153
	YR				964	1,096	5,581	7,641	6,949
MERCEDES	MO				158	192		350	292
	YR				540	726		1,266	1,216
NAVISTAR	MO		13	34	916	2,890	3,037	6,890	6,596
	YR		22	102	3,298	9,983	9,735	23,140	22,130
*PETERBILT	MO						968	968	854
	YR						2,991	2,991	2,939
VOLVO	MO					174	1,148	1,322	1,222
	YR					526	3,404	3,930	3,933
HINO	MO			21	40	51		112	0
	YR			127	169	276		572	0
NISSAN DIESEL	MO			20	16	40		76	0
	YR			114	103	235		452	0
ISUZU TRUCK	MO	427		14	19			460	441
	YR	1,455		36	65			1,556	1,651
MITSUBISHI FUSO	MO	60			21	21		102	0
	YR	127			46	92		265	0
SCANIA	MO						4	4	0
	YR						50	50	0
IVECO TRUCKS	MO	149	79	50	6			284	0
	YR	463	198	176	30			867	0
WESTERN STAR	MO						150	150	0
	YR						290	290	0
OTHER DOMESTICS	MO				14		94	108	115
	YR				25		324	349	394
GRAND TOTAL	MO	424,720	92	257	3,880	10,059	12,749	451,757	418,749
	YR	1,480,998	220	3,120	13,348	33,375	40,294	1,571,355	1,514,266
1986 YR to DATE		1,429,522	0	1,386	13,594	33,531	36,253		

Class 1-3 sales data reported by individual manufacturers; Class 4-8 data reported by Motor Vehicle Manufacturers Association.

Class 8 sales climb; April total is 12,749

By Joseph Bohn
AUTOMOTIVE NEWS STAFF REPORTER

Retail sales of Class 8 heavy trucks were up sharply in April, as were those in the medium-duty Class 4, 5 and 6 segments.

Class 7 sales, although down slightly from a year ago, showed continuing improvement, according to figures compiled by the Motor Vehicle Manufacturers Association.

There now are 27 truck companies reporting U.S. retail sales in the light, medium and heavy market segments.

Western Star reported sales for the first time last month. No year-ago comparison figure was available.

Since last fall, when Automotive News devised its retail sales table for medium and heavy-truck manufacturers, a number of new companies have either entered the market or have begun reporting sales for the first time.

They include Iveco, Scania, Mitsubishi Fuso, Nissan Diesel and Hino.

Total truck industry retail sales in the United States for April were a record 451,757, up 7.9 percent from a year ago.

For the first four months of calendar 1987, total retail truck sales of 1,571,355 were also a record, up 3.8 percent from last year's previous high.

During April, Class 8 truck manufacturers retailed 12,749 units, up 22.3 percent from the same month a year ago.

For four months of calendar 1987, Class 8 sales of 40,294 were up 11.1 percent over the same period in 1986.

Class 7 truck sales of 10,059 last month were slightly below the 10,202 retailed a year earlier. Class 7's four-month calendar year total of 33,375 was slightly below sales of 33,531 for the same period in 1986.

Class 4, 5 and 6 sales totaled 4,229 in April, up from 4,051 a year earlier. The calendar year-to-date total of 16,688 for those segments was up 11.6 percent from last year.

Most of the medium and heavy-truck manufacturers are off to a strong start this year, and Kenworth is having an exceptional year. Its Class 8 sales of 1,212 trucks in April were up 39.3 percent over last year. For the first four months, its Class 8 sales of 4,246 units were up 39.2 percent over the same period in 1986.

Kenworth also sold 30 of its new Brazilian medium-duty models in April.

Freightliner also had a strong April, with Class 8 sales of 2,108, up 27.8 percent over last year.

For the first four months, Freightliner's sales of 6,775 trucks were up 20.8 percent over the same period a year ago.

Volvo White, GMC's future heavy-truck partner, had Class 7-8 retail deliveries of 1,322 trucks in April, up 8.2 percent over last year.

For the first four months of 1987, Volvo White's sales of 3,930 were a shade below 3,933 for the same period a year earlier.

Ford's new medium-duty Cargo due in dealerships this summer

By A.S. Plotkin
SPECIAL CORRESPONDENT

BOSTON — Ford Motor Co.'s latest entry in the medium-size-truck sweepstakes, the CF-8000, has more horsepower and a higher GVW rating than other trucks in the company's two-year-old Brazilian-built Cargo series.

The CF-8000 debuted at the New England Truck Show here and will show up in Ford dealerships early this summer, according to Kenneth F. Smith, heavy-truck general operations manager for Ford Truck Operations.

With its greater size and muscle, Smith said, the CF-8000 "should have strong appeal to operators seeking to maximize capacity in a Class 7 chassis."

Ford has increased its calendar-1987 North American retail sales projection for medium and heavy trucks to 275,000 from an earlier 270,000.

Smith pointed out that the industry is off to a good start this year, but he said he didn't think the current rate would hold up for the balance of 1987.

"We are not looking for a barnburner, but it will be better than last year (265,000 retail sales). Canada started out really strong, but has started to soften. It is still a very competitive marketplace, and changes are taking place. The dealers are concerned about the long term, much as they were last year," Smith added.

Although Ford is facing tough competition, Smith said he felt the company is "working on the right things. We will be expanding the Cargo line again this year."

Smith: CF-8000 "should have strong appeal to operators seeking to maximize capacity in a Class 7 chassis."

The Brazilian-built Cargo line was introduced two years ago. It replaced Ford's old CF series and accounted for 2,000 North American retail sales in its first partial year on the market.

Smith said that Ford has begun "winding down" on older-style C-series models, but "they're still so strong that we would be killed by our customers unless we had an adequate replacement."

In 1986, Ford retailed 3,200 Cargos in North America, with its biggest problem being lack of availability to meet market demand, according to Thomas J. Steckel, medium-truck product manager.

The Cargo is now available in five wheelbases and with a choice of three Ford engines, ranging up to 210 horsepower.

The new CF-8000 will be available in four wheelbases, from 171 inches to 225 inches.

New options available will include a suspended driver's seat for smoother ride and an exhaust brake that, according to Smith, "contributes to a reduction of service-brake lining wear and helps minimize the possibility of brake fade."

Study charts Japanese invasion of U.S. parts industry

By Geoff Sundstrom
AUTOMOTIVE NEWS STAFF REPORTER

WASHINGTON — Japanese companies will soon be manufacturing everything from antifreeze to air conditioners in the United States.

The Original Equipment Division of the Motor and Equipment Manufacturers Association lists 126 facilities owned or partly owned by Japanese companies that are now manufacturing in this country or will be by 1990.

An internal Commerce Department study (Automotive News, May 18) places that number around 300 companies, including materials suppliers.

According to the report, Japanese firms rank states in three groupings in terms of investment desirability. The most desirable is Group I (Illinois, Indiana, Kentucky and Ohio), followed by Group II (Michigan, Missouri and Tennessee) and Group III (Pennsylvania and Arkansas).

The study elaborates on the selection of investment locations, saying, "Firms use weighted ratings for various factors, to evaluate the degree of investment desirability, but, of course, much subjectivity and 'gut feeling' is employed in the final decision."

The report said Japanese companies are increasingly interested in joint ventures with American companies, thus providing the Japanese with quick access to the local market and fast introductions to the U.S. Big Three.

Merger and acquisition — known as M&A — has become the new buzzword in Japan, the report said.

According to the authors of the report, "Some strategists suggest that savvy and competitive U.S. parts suppliers should cut price and costs and increase R&D immediately to maintain market share and put severe pressure on the newcomers. Of course, most Japanese believe there is only a slim chance that U.S. suppliers will take such strong action."

The Commerce Department report said it seems to be the view of Japanese industry that U.S. automakers will cede some production capacity to the Japanese while maintaining responsibility for marketing Japanese-manufactured goods. According to the study, "Japanese are aware that some U.S. analysts envisage U.S. automakers relegating themselves to the role of marketing organizations."

"It is a mistake to believe that many Japanese parts makers are moving to the states

see PARTS, page 19

Japan's auto/parts makers in U.S.

Venture	Products	Location	No. of Employees	Ownership	Start-Up Date	Supplier to:
Aeroquip Automotive Inc.	air conditioning hoses, power steering hoses, fuel lines, oil cooler lines, tube connectors, couplings	Van Wert, Ohio		Aeroquip Corp. Yokohama Aeroquip Co. Yokohama Rubber Corp.	1987	
Aisan Kogyo Co.	carburetors fuel pumps	Des Plaines, Ill.		Aisan Industry Co. Ltd.	1982	
Aisin USA Inc.	pressed parts	Seymour, Ind.		Aisin Seiki Co. Ltd.	1988	Toyota Motor Mfg.
Alcan Toyo American Inc.	aluminum paint	Joliet, Ill.		Toyo Aluminum K.K. (80%); Alcan Aluminum Co. (20%)	1988	
Alcoa Fujikura Rubber Co. (PEP Idustries)	wiring harnesses	Pittsburgh		Alcoa (51%) Fujikura Gomu Kogyo (49%)	1986	Ford
Alpine Electronics Mfg. of America	automotive audio equipment, switches	Greenwood, Ind.		Alpine Electronics of America (70%) Alps Electric Co. Ltd. (30%)	1987	American Honda
American Brake Industry (Ambrake Corp.)	brake systems	Elizabethtown, Ky.		GM Delco Moraine Division (50%) Akebono Brake Industry Co. Ltd. (50%)	1988	Toyota Motor Mfg.
American Koyo	bearings	Orangeburg, S.C.	200	Koyo Seiko Co.	1975	
American Yazaki Corp.	wiring harnesses	El Paso, Texas		Yazaki Corp.	1984	Chrysler Nissan Motor Mfg. Diamond-Star
Amtex Inc.	floor mats, trunk mats, door opening trim	Manteca, Calif.	50	Hayashi Telempu Co. Ltd. (50%) C.H. Masland & Bons (50%)	1986	NUMMI
AP Technoglass	window glass, metal and rubber window parts	Bellefontaine, Ohio	120	Asahi Glass (60%) Takahashi Glass Industries (20%) PPG Industries (20%)	1986	American Honda Diamond-Star
Arvin Sango Inc.	exhaust components			Arvin Industries, Inc. North American Automotive Div. (50%); Sango Co. Ltd. (50%)	1988	
ASMO Co. Ltd.	small motors for wipers, blowers, lights	Battle Creek, Mich.		ASMO Co. Ltd.	1987	Nippondenso
Astronet Corp.	cellular phones	Lake Mary, Fla.	50	Plessy Co. PLC (51%); Mitsubishi Denki KK (25%); Mitsubishi Corp. (24%)	1984	
ATR Wire and Cable	wire tire cord	Danville, Ky.	680	Tokyo Rope Mfg. Co. (60%) Mitsubishi (20%) C. Itoh & Co. (20%)	1981	U.S. tire companies
Belle Tech Corp.	car window glass assemblies, metal and rubber parts	Bellefontaine, Ohio	70	Asahi Glass Co. (60%) Takahashi Glass Industries (20%) PPG Industries (20%)	1986	American Honda Nissan Motor Mfg.
Bellemar Parts Industry	seat assemblies, exhaust systems	Marysville, Ohio	170	Honda America Mfg. (80%) Sankei Giken Kogyo Co. (10%) Tokyo Seat Co. (10%)	1982	American Honda
Bellemar Parts Industry	exhaust system, catalytic converters, brake lines, door sashes, seat frames	Russells Point, Ohio	140	Honda America Mfg. (80%) Sankei Giken Kogyo Co. (10%) Tokyo Seat Co. (10%)	1985	American Honda
Berwick Steel Co.	slitters of steel	Columbus, Ohio		Nissho Iwai Corp.	1985	GM
Bloomington Seating Co.	seats	Normal, Ill.		Namba Press Works Co. (50%) Douglas and Lomason Co. (50%)	1988	Diamond-Star

Venture	Products	Location	No. of Employees	Ownership	Start-Up Date	Supplier to:
Bridgestone Tire Mfg. (USA)	tires	LaVergne, Ind.	1,100	Bridgestone Corp.	1982	Nissan Motor Mfg.
Bundy-Usui International Corp.	tubing assemblies	Bloomington, Ill.		Usui Kokusai Sangyo	1988	
Calsonic Inc.	air conditioning systems	Irvine, Calif.	220	Nihon Radiator Co. Ltd.	1976	Nissan Motor Mfg.
Calsonic Mfg. Corp.	air conditioning systems exhaust assemblies	Bedford, Tenn.	320	Calsonic Inc. (80%) Nihon Radiator Co. Ltd. (20%)	1985	Nissan Motor Mfg.
Calsonic Yorozu	metal stampings	McMinnville, Tenn.	150	Nihon Radiator Yorozu Jidosha Kogyo	1988	
Cast Forge Co.	aluminum wheels, intake manifolds, transmission parts	Howell, Mich.	100	Kelsey-Hayes Co. (80%); Nippon Light Metal (20%)	1982	Mazda
Central Manufacturing Co.	wheels and related parts	Paris, Ky.	50	Kelsey-Hayes (40%) Central Motor Wheel (40%) Toyoda Isusho Co. (20%)	1988	Nissan Motor Mfg.
Chuo Yuka	antifreeze, windshield wiper solvents	Pittsburgh		Chuo Spring Co. Ltd.		Nissan Motor Mfg.
Chuo Yuka	brake fluid	Louisville, Ky.		Chuo Spring Co. Ltd.		Nissan Motor Mfg.
CKR Industries	weather stripping & sealers	Winchester, Tenn.	115	Kinugawa Rubber Industrial Co. (45%) Chardon Rubber Co. (55%)	1986	Nissan Motor Mfg.
Clarion Mfg. Corp. of America	car radios and stereo systems	Walton, Ky.	90	Clarion Shoji Ltd.	1987	Nissan Motor Mfg.
Clevite Bridgestone Co.	rubber to metal parts	Milan, Ohio		Clevite Industries Inc. (51%) Bridgestone Tire and Rubber Co. (49%)	1988	
Curtis-Maruyasu America Inc.	fuel line and hydraulic brake assemblies	Tracy, Calif.	25	Maruyasu Kogyo (50%); Curtis Industries (50%)	1985	NUMMI
Daiwa Steel U.S. Project		Pine Bluff, Ark.		Daiwa Steel Tube Industries Co.	1988	
Delta Kogyo Ltd.	seats	Monroe, Mich.		Delta Kogyo Co. Ltd.	1987	Mazda
Diamond-Star Motors	cars	Bloomington-Normal, Ill.	2,500	Chrysler Corp. (50%); Mitsubishi Motors (50%)	1988	
Dunlop Tire Corp.	tires	Grand Island, N.Y.	900	Sumitomo Rubber Dunlop Tire Corp.		
Dunlop Tire Corp.	tires	Huntsville, Ala.	800	Sumitomo Rubber Dunlop Tire Corp.		American Honda
Enkei America Inc.	aluminum wheels	Columbus, Ind.	300	Enshu Keigokin Co. Ltd. (60%) Mitsubishi (40%)	1987	GM
Fuji Koki America	thermostatic expansion valves, other controls	Dallas	40	Fuji Koki Mfg.	1982	Nippondenso Honda Calsonic
Fujitsu America Inc.	cellular phones	Richardson, Texas	160	Fujitsu Ltd.	1984	
Fujitsu Ten	car stereos	Rushville, Ind.	20	Fujitsu Ten Ltd.	1987	
Greenville Technology Inc.	plastic components	Marysville, Ohio		Morioku Co. Ltd.	1987	American Honda
Hi-Lex Corp.	control cables for accelerators, clutches, hood/trunk release, gas caps, & brakes	Battle Creek, Mich.	50	Nippon Cable System Inc.	1978	GM Ford Chrysler Navistar Nissan Motor Mfg.
Hisan	fuel & brake line brake coatings, bindings	Rochester, Ohio		Sanoh Industries Corp. (50%) ITT Higbee (50%)	1987	
Hitachi Automotive Products, USA	magnetic sensors, engine controls	Harrodsburg, Ky.	50	Hitachi Ltd.	1986	Nissan Motor Mfg.
Honda America Mfg. Inc.	cars	Marysville, Ohio	2,300	Honda Mfg. Co. Ltd.	1981	
Honda Manufacturing	assembled engines, cast aluminum blocks, cast aluminum wheels	Anna, Ohio	225	Honda America Mfg. Co.	1986	American Honda